

STATE OF HAWAII DEPARTMENT OF HEALTH

P. O. BOX 3378 HONOLULU, HI 96801-3378 In reply, please refer to:

February 3, 2022

55-11 S106 ltr (rev APE AMP).docx

Alan S. Downer, PhD, Administrator State of Hawai'i, Department of Land and Natural Resources State Historic Preservation Division 601 Kamokila Boulevard, Rm. 555 Kapolei, HI 96707 Submitted via: SHPD HICRIS

Dear Dr. Downer:

Subject: National Historic Preservation Act (NHPA)

Request for Section 106 Concurrence of Enlarged Area of Potential Effects (APE),

Expanded Consultation List, and Proposed Determination Wailua Sewage Pump Station (SPS) No. 1 Rehabilitation

Clean Water State Revolving Fund (CWSRF) Project No.C150055-11

Wailua, Island of Kaua'i, Hawai'i

TMK: (4) 3-9-006:019

SHPD Log Nos.: 2019.00746, 2020.00001, 2020.00938, 2020.02812

On behalf of the Environmental Protection Agency (EPA), the State of Hawai'i Department of Health (DOH) requests the State Historic Preservation Officer's (SHPO's) concurrence of the revised APE, expanded consultation list, and proposed effect determination for the proposed Wailua Sewage Pump Station (SPS) No. 1 Rehabilitation project located in Wailua, Island of Kaua'i, Hawai'i (Attachment C).

The proposed project may be eligible to utilize federal funding that is administered by the DOH through the CWSRF and will be considered a federal action and undertaking, as defined by Section 106 of the NHPA of 1966 (as amended 2014), Title 54 of the United States Code (54 USC) Section 306108, and Title 36 of the Code of Federal Regulations (36 CFR) Part 800.

The EPA has authorized the DOH to act on behalf of the EPA regarding NHPA Section 106 notification and consultation.

The APE has been enlarged as requested by the SHPO/State Historic Preservation Division (SHPD) and this letter requests concurrence of the enlarged APE.

The list of Native Hawaiian organizations (NHO), consulting parties, and/or interested persons that might attach significance to this enlarged APE has been expanded and consultations will continue in accordance with Title 36 of the *Code of Federal Regulations* (CFR), Section 800.3.

This letter is to request Section 106 concurrence of the proposed effects determination from the SHPO and SHPD in accordance with 36 CFR, Section 800.4.

This letter includes a historical review of the APE and proposed mitigation measures for the subject project.

Project Information

The proposed project is located at the existing Wailua Wastewater Treatment Plant (WWTP) in Wailua, Kaua'i. The Wailua WWTP is located at 4460 Nalu Road on Tax Map Key (TMK) parcel (4) 3-9-006:019. A Location Map is enclosed in Attachment B.

The project's APE encompasses 0.62 acres within the Wailua WWTP. Figure 1 in Attachment D shows the APE of the project.

The Wailua WWTP was originally constructed in 1964 and the County's Tax Assessor information shows 1977 as the effective year built. The project site has been subjected to four phases of construction in the development of the municipal WWTP.

The Wailua SPS No. 1 is mostly an underground structure consisting of a cast-in-place concrete wet well, which appears to be in good condition and a separate pre-fabricated steel dry well that has reached the end of its useful life.

Proposed work at the Wailua SPS No. 1 involves the installation of two (2) new submersible pumps in the wet well, which will allow the existing dry well to be abandoned, the installation of new valves, piping, a flow meter, pipe supports, electrical and control wiring, and control panels. Other proposed actions include structural modifications to the wet well structure, piping reconfiguration, and electrical improvements including the replacement of area lighting. Proposed work is expected to involve conventional open-cut trenching with anticipated excavation depths ranging from approximately three (3) to fifteen (15) feet below the existing ground elevation. To avoid interruptions in sewer service, temporary bypass pumps and piping will be installed within the County-owned parcel during construction. The proposed new piping will be mostly aboveground. Design drawings showing the proposed improvements are provided in Attachment C.

Historic Background

The project site is located on a portion of the Wailua WWTP, which is located in Wailua ahupua'a, Puna moku, island of Kaua'i. The Wailua WWTP is located approximately 0.3 miles south of the mouth of the Wailua River and directly adjacent to Lydgate Park (see enclosed Location Map in Attachment B). Wailua, particularly the area immediately surrounding Wailua River, was the religious and political center of Kaua'i during pre-contact times (Bushnell et al., 2004). Numerous cultural, religious, and agricultural sites have been identified along the banks of the Wailua River, demonstrating the importance of the area. A map of known cultural and archaeological resources in the area is enclosed (Attachment E) for your review. The map was obtained from a report prepared for the Lydgate Park-Kapa'a Bike/Pedestrian Path project, the *Cultural Impact Assessment for the Kapa'a Relief Route; Kapa'a, Waipouli, Olohena, Wailua*

and Hanamā'ulu, Island of Kaua'i (Bushnell et al., 2004). It shows the density and richness of resources along the banks of the Wailua River. The full historic background provided in Attachment A and the Archaeological Monitoring Plan.

<u>Impacts</u>

The proposed project requires ground disturbance for modification of the proposed wet well and for installation of associated underground utility lines. Most of the proposed improvements, however, occur within lands that have been previously disturbed.

The proposed wet well modifications are located in an area that was previously excavated during original installation of the existing wet well.

Underground utility lines will be installed using open cut trenching. However, record drawings indicate that the project area is located on land that was filled prior to construction of the Wailua WWTP. Figure 3 in Attachment D shows the depth of the proposed utility lines, depth of the existing ground, and the depth of previously undisturbed ground (i.e. the ground level prior to construction of the Wailua WWTP in 1964). As shown in Figure 3, most of the proposed utility line installation are located above the original ground level in soil that was imported during original construction of the Wailua WWTP. Only a small portion of a proposed electrical conduit extends below the original ground level.

We believe there is minimal possibility of encountering subsurface archaeological resources during construction of the proposed project since the majority of the proposed ground disturbance occurs in either previously disturbed soil or in imported fill.

Mitigation Measures

Although we believe there is only a minimal possibility of encountering subsurface archaeological resources during construction, archaeological monitoring will occur during ground disturbing activities due to the prevalence of cultural resources, archaeological finds, and burials near the Wailua WWTP. The cover letters for the fifteenth (15th) draft of the Archaeological Monitoring Plan (i.e. Project 2447 AMP-15) is provided in Attachment F and the cover letter for the Reconnaissance Level Survey is provided in Attachment G. The proposed archaeological monitoring plan for the project is currently being reviewed by the SHPD.

Previous Consultation

The County of Kaua'i, Department of Public Works (COK-DPW) submitted a request for a Letter of No Effect per Hawai'i Revised Statutes Chapter 6E and Hawai'i Administrative Rules §13-275 to the SHPD in a letter dated April 30, 2018. The SHPD concurred with the no historic properties affected determination in a letter dated June 12, 2018.

The DOH initiated Section 106 consultation with the SHPO/SHPD in a letter dated April 8, 2019. The COK-DPW initiated Section 106 consultation with NHO, consulting parties, and interested persons with the first round of consultation letters dated April 22, 2019. The Section 106

consultation notice was published in the Office of Environmental Quality Control (OEQC) – The Environmental Notice on April 23, 2019. A minimum of thirty (30) days to review and comment was provided, which ended on May 8, 2019. A response letter dated June 24, 2019 was received from the SHPO/SHPD and SHPO/SHPD's comments were addressed. In order to address SHPO/SHPD's comments, a second round of consultation letters dated October 4, 2019 were sent from the COK-DPW to NHO, consulting parties, and interested persons. A minimum of thirty (30) days to review and comment was provided, which ended on November 11, 2019. As of November 11, 2019, there were no comments. The DOH requested concurrence from the SHPO/SHPD of our proposed a determination of "no historic properties affected" in a letter dated January 2, 2020. A minimum of thirty (30) days to review and comment was provided, which ended on February 3, 2020. As of February 10, 2020, there were no comments provided by the SHPO/SHPD, NHO, consulting parties, or interested persons. The DOH completed the NHPA Section 106 consultation process with the SHPO/SHPD in a letter dated February 10, 2020 to the COK-DPW and carbon copy to the SHPO/SHPD.

Consultation

Since the proposed determination by the DOH, the APE has been expanded to include both direct and indirect impacts, including equipment staging areas and plant operational impact areas, as requested by the SHPO/SHPD. The APE, however, remains within the existing Wailua WWTP facility and the proposed improvements within this project have not changed. Historic properties are not located within the APE and the project site is not listed on the National and State Register of Historic Places. We believe that no historic properties will be affected by the project since the proposed improvements primarily occur within developed areas of the site. Work is not expected to affect any significant structures at the site. Archaeological monitoring will be conducted during ground disturbing activities and, in the unlikely event that subsurface historic resources are discovered during ground disturbing activities, work in the vicinity of the find will cease and the SHPD/SHPO will be contacted immediately.

NHO, consulting parties, or interested persons that might attach significance to this area have been sent consultation letters regarding the subject project concurrently with this consultation letter. A list of NHO, consulting parties, or interested persons being consulted are included in Attachment H.

We welcome any comments that you may have on this project's proposed improvements. We are particularly interested in any information you may have on the historic and cultural sites that have been recorded in the area. In addition, if you are acquainted with any persons or organizations that are knowledgeable about the proposed project area or any descendants with ancestral, lineal, or cultural ties to, cultural knowledge or concerns for, and/or cultural or religious attachment to the proposed project area, then we would appreciate receiving their names and contact information.

Based on the information presented in the letter and attachments, including review and inventory of historic properties in the project vicinity and consultation with NHO, consulting

parties, or interested persons, the DOH is proposing a no historic properties affected determination for the subject project.

If the SHPO and SHPD object to the proposed no historic properties affected determination for the Wailua Sewage Pump Station (SPS) No. 1 Rehabilitation project, then please inform us within thirty (30) calendar days of receipt of this letter.

We would appreciate a written response within thirty (30) calendar days from receipt of this letter. Please address any written comments to email: jonathan.nagato@doh.hawaii.gov or the following address:

Attn: Jon Nagato Department of Health, Wastewater Branch 2827 Waimano Home Road, Room 207 Pearl City, HI 96782

Should you have any questions, please contact Jon Nagato of our Branch at (808) 586-4294.

Sincerely,

Sur XL

SINA PRUDER, P.E., CHIEF

Wastewater Branch

Attachments

JN:sp

C:

Dr. Susan Lebo (via email at Susan.A.Lebo@hawaii.gov)

Mr. David Buckley (via email at David.Buckley@hawaii.gov)

Mr. Donn Kakuda (via email at DKakuda@kauai.gov)

Mr. Joe Kwan (via email at joe@tlcghawaii.gov)

Attachment A

<u>Historic Background</u> (by The Limtiaco Consulting Group, Inc.)

The project site is located on a portion of the Wailua WWTP, which is located in Wailua ahupua'a, Puna moku, island of Kaua'i. The Wailua WWTP is located approximately 0.3 miles south of the mouth of the Wailua River and directly adjacent to Lydgate Park (see enclosed Location Map in Attachment B). Wailua, particularly the area immediately surrounding Wailua River, was the religious and political center of Kaua'i during pre-contact times (Bushnell et al., 2004). Numerous cultural, religious, and agricultural sites have been identified along the banks of the Wailua River, demonstrating the importance of the area. A map of known cultural and archaeological resources in the area is enclosed (Attachment F) for your review. The map was obtained from a report prepared for the Lydgate Park-Kapa'a Bike/Pedestrian Path project, the *Cultural Impact Assessment for the Kapa'a Relief Route; Kapa'a, Waipouli, Olohena, Wailua and Hanamā'ulu, Island of Kaua'i* (Bushnell et al., 2004). It shows the density and richness of resources along the banks of the Wailua River.

Notably, the area is home to the Wailua Complex of Heiau which was designated as a National Historic Landmark in 1962. The complex includes four heiau (Hikinaakalā, Holoholokū, Poliahu, and Malaehaʻakoa), Puʻuhōnua o Hauola (place of refuge), Pōhaku Hanau (royal birthing stone), a bellstone, and ancient petroglyphs.

Hikinaakalā Heiau is located on the southern bank of the Wailua River adjacent to the shoreline. It is located approximately one-quarter mile north of the Wailua WWTP. Hikinaakala Heiau was originally a large rectangular enclosure with walls six feet high and 11 feet wide. Puʻuhōnua o Hauola is located near Hikinaakalā Heiau along with petroglyphs just north of Hauola on a series of boulders in the water (NPS, 2019).

Holoholokū Heiau is located north of Wailua River and mauka of Kūhiō Highway along Kuamoʻo Road within the Wailua River State Park. It is located over one-half mile north of the Wailua WWTP. The walls of the enclosure were made of stone and pieces of branch coral. The Pōhaku Hanau (royal birthing stone) and Pōhaku Piko (ceremonial stone for newborn child's umbilical cord) is located adjacent to the Holoholokū Heiau (NPS, 2019). Māhele documents identify Holoholokū as a cemetery (Bushnell et al., 2004).

Poliahu Heiau is located over one mile to the northeast of the Wailua WWTP near Nounou Ridge, north of the Wailua River. The Poliahu Heiau encompasses over one acre with walls five feet high and five feet wide. The Wailua Bellstone, which was used to announce important events, is located near the Poliahu Heiau (NPS, 2019).

Malae Heiau is located approximately one mile to the northeast of the Wailua WWTP on the north bank of the Wailua River and is one of the largest surviving temple platforms in the State. The heiau encompasses almost 2 acres and the walls were between eight and ten feet high and eight feet wide.

Following European contact few westerners visited Wailua, preferring instead to anchor at Waimea on the southwestern side of the island. Over time, Waimea would overshadow Wailua in royal importance because of opportunities presented by foreign visitors. However, Wailua remained the "capital" of Kaua'i at least until the time of Captain George Vancouver's visit to the island in 1798. During the mid-1800s, the economic center of Kaua'i had shifted from Wailua to Waimea. Only Māhele and Kuleana claims were awarded to twenty-seven individual claimants in Wailua, far less than in other areas, which indicates the decline in the Wailua area due to the shift of royal influence to Waimea as well as population decline due to disease (Shideler, 2001).

By the latter half of the 19th century, areas south of the Wailua River were converted to plantations as part of the Lihue Plantation Company's sugar cane operations.

With regards to archaeological surveys, numerous burials have been found in the nearshore sand dunes in the Wailua area. In particular, many burials have been recorded in association with State site 50-30-08-103 which encompasses the Wailua Golf Course. *An Archaeological Condition Report for the Ahuikini-Lydgate Segment of the Kaua'i Pathways Project* (Dega and Powell, 2006) states that, at the time of writing of the report, over 66 burials have been identified in the golf course alone. The Wailua Golf Course is located just over one-quarter mile south of the Wailua WWTP. The general area is understood to be a pre-contact and historic burial ground (Bushnell et al., 2004).

Attachment B

References

Bushnell, Shideler and Hammatt. "Cultural Impact Assessment for the Kapa'a Relief Route; Kapa'a, Waipouli, Olohena, Wailua and Hanamā'ulu, Island of Kaua'i." Cultural Surveys Hawaii, May 2004.

Dega, Michael and Powell, James. "An Archaeological Condition Report for the Ahukini-Lydgate Segment of the Kaua'i Pathways Project, Kaua'i Island, Hawai'i." Scientific Consultant Services, September 2006).

Shideler, Creed and Hammatt. "Archaeological Assessment of a Corridor for a Proposed Bike Path in Lydgate State Park, Wailua Ahupua'a, Puna District, Island of Kaua'i (TMK: 3-0-06)." Cultural Surveys Hawaii, January 2001.

U.S. National Parks Service (NPS). "Wailua Complex of Heiaus". National Park Service, U.S. Department of the Interior, 16 August, 2019.

Alan S. Downer, PhD, Administrator February 3, 2022

Attachment C

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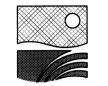
WAILUA SEWAGE PUMP STATION (SPS) NO. 1 REHABILITATION

WAILUA, KAUA'I, HAWAI'I TMK: (4) 3-9-006:019

PREPARED FOR:

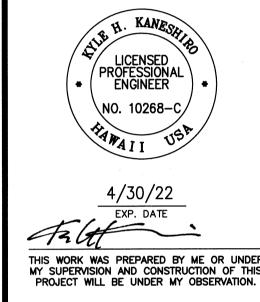


PREPARED BY:



THE LIMTIACO CONSULTING GROUP CIVIL ENGINEERING AND ENVIRONMENTAL CONSULTANTS

1622 KANAKANUI STREET HONOLULU, HAWAI'I 96817



			DESCRIPTION APPRO
VICINITY MAP	LOCATION MAP	APPROVA	ALS
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	WAILUA RIVER	CHEE WAS TEWATER MANAGEMENT DIVISION DEPARTMENT OF PUBLIC WORKS COUNTY OF KAUA'I	DATE
HANALEI	RIVER	COUNTY ENGINEER	8-17.22 DATE
KAUA'I	PACIFIC OCEAN	DEPARTMENT OF PUBLIC WORKS COUNTY OF KAUA'I	
PROJECT PROJECT LIHU'E NAWILIWILI LOCATION	HILTON GARDEN INN LYDGATE PARK	CHIÉF, ENVIRONMENTAL MANAGEMENT DIVISION DEPARTMENT OF HEALTH STATE OF HAWAI'I	8-10-20 DATE
VICINITY MAP	PROJECT LOCATION TMK (4) 3-9-006:019	STATE OF HAWAI'I	
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	LOCATION MAP SCALE: 1" = 200'		

		INDEX OF DRAWINGS
SHEET NO.	DWG. NO.	DESCRIPTION
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2	T-1 T-2	TITLE SHEET, LOCATION MAP INDEX OF DRAWINGS
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4	T-4	GENERAL NOTES - 2
		CIVIL
5	C-1	LOCATION PLAN - WAILUA WWTP
6 7	C-2 C-3	SUGGESTED PHASING PLAN SITE DEMOLITION AND EROSION CONTROL PLAN
8	C-4	PUMP STATION DEMOLITION SECTION
9	C-5	SITE AND GRADING PLAN
10	C-6	PIPING PLAN
11	C-7	PROPOSED PUMP STATION SECTIONS
12	C-8	DETAILS
		STRUCTURAL
13	S-1	STRUCTURAL NOTES, KEYPLAN, TYPICAL DETAILS
14	S-2	WET WELL PLANS
15 16	S-3 S-4	SECTIONS SECTIONS AND DETAILS
10	3 1	SECTIONS AND DETAILS
17	E-1	ELECTRICAL GENERAL NOTES AND ELECTRICAL SYMBOLS
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20	E-4	SEWAGE PUMP STATION NO. 1 DEMO PLAN
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22	E-6 E-7	ONE-LINE DIAGRAM, PANEL SCHEDULE, AND LIGHT FIXTURE SCHEDULE MISCELLANEOUS ELECTRICAL DETAILS 1
24	E-8	MISCELLANEOUS ELECTRICAL DETAILS 1 MISCELLANEOUS ELECTRICAL DETAILS 2
25	E-9	MISCELLANEOUS ELECTRICAL DETAILS 3

ABBREVIATIONS

ASPHALTIC CONCRETE ICV IRRIGATION CONTROL VALVE ACP ASBESTOS CEMENT PIPE I.D. INSIDE DIAMETER INVERT BOTTOM OF BANK IRR IRRIGATION BOTTOM CURB LIGHT POLE BLDG BUILDING MAT'L BEST MANAGEMENT PRACTICES MATERIALS BS BOTTOM OF SWALE MAX. MAXIMUM MECH. BOTTOM MECHANICAL BOTTOM WALL MANHOLE CAST IRON MECHANICAL JOINT CB CATCH BASIN MIN MINIMUM CONTROLLED LOW STRENGTH MATERIAL ND NOMINAL DIAMETER CONCRETE MASONRY UNIT CMU ON CENTER CO CLEAN OUT PLAIN END CONC CONCRETE POLYVINYL CHLORIDE PVC CONN CONNECTION PROPERTY LINE REQUIRED CRM CONCRETE ROCK MASONRY CONT. CONTINUATION SPREAD CTRL CONTROL SCO SEWER CLEAN OUT SDMH DIAMETER STORM DRAIN MANHOLE SMH SEWER MANHOLE DUCTILE IRON DWGS DRAWINGS STAINLESS STEEL STRUCT. STRUCTURAL DRIVEWAY ELECTRIC BOX SIDEWALK EXISTING GRADE TOP OF BANK ELECT. ELECTRICAL TOP CURB EXIST **EXISTING** TAX MAP KEY EXP EXPOSED TOP PIPE FINISH GRADE TOP OF SWALE TOP WALL FLANGE FORCE MAIN UNDER GROUND FOUND POTABLE WATER FND HEIGHT/HORIZONTAL WASTEWATER TREATMENT PLANT

SHEET NUMBERING NOMENCLATURE

ALL SHEETS WILL BE NUMBERED BEGINNING WITH A LETTER FOLLOWED BY THREE NUMBERS AS FOLLOWS:

C - CIVIL S - STRUCTURAL E - ELECTRICAL

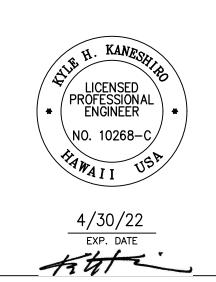
G — GENERAL

SHEET NUMBER
DISCIPLINE LETTER

DETAIL/SECTION TITLE

-SECTIONS DESIGNATED BY A LETTER AND DETAILS DESIGNATED BY A NUMBER X DETAIL NAME C-1 SCALE: 1/2" = 1'-0"

> -SHEET NUMBER WHERE DETAIL/SECTION IS SHOWN



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

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REV.	DATE	DESCRIPTION	AF
		THE LIMTIACO CONSULTING GROUP CIVIL ENGINEERING AND ENVIRONMENTAL CONSULTANTS 1622 KANAKANUI STREET • HONOLULU, HAWAI'I 96817	
WA	ILUA S	SEWAGE PUMP STATION (SPS)	NO.
		WAILUA, KAUA'I, HAWAI'I	

INDEX OF DRAWINGS

DATE: JUNE 2020 APPROVED: DRAWN BY: CJ/JA ENGINEER: JA/JYK CHECKED BY: KK | FILE NO: SCALE: AS SHOWN FIELD BOOK NO: SHEET 2 OF 25 SHEETS

GENERAL NOTES

- 1. EXISTING UTILITY LINES SHOWN ARE COMPILED FROM EXISTING DATA AND HAVE NOT BEEN EXACTLY VERIFIED IN THE FIELD. UNDERGROUND CONDITIONS AND UTILITIES ARE FROM OTHER SOURCES NOT CONNECTED WITH THIS COMPANY AND ARE SHOWN HEREIN FOR DESIGN INFORMATION PURPOSES ONLY. NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF THE EXISTING FACILITIES SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE LOCATION OF ALL EXISTING FACILITIES AND UTILITIES THAT WILL BE AFFECTED BY HIS WORK WHETHER OR NOT SHOWN ON THE PLANS, AND SHALL PROTECT SUCH FACILITIES AND UTILITIES TO REMAIN WHICH ARE NOT AFFECTED BY HIS WORK. ANY DAMAGE TO SUCH UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE ENGINEER'S SATISFACTION AT NO ADDITIONAL COST TO THE COUNTY.
- 2. CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENT FOR UTILITIES SUCH AS ELECTRICITY, WATER. SEWER. ETC. FOR HIS OPERATIONS. AND ALL COSTS SHALL BE PAID FOR BY THE CONTRACTOR.
- 3. VERIFY AND CHECK ALL DIMENSIONS AND DETAILS ON THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR ANY DISCREPANCY. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- 4. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FORM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- 5. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY, AND ENVIRONMENTAL QUALITY.

NOTES FOR GENERAL CONSTRUCTION

- 1. ALL CONSTRUCTION WORK IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE PUBLICATIONS "HAWAI'I STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2005" AND ITS AMENDMENTS AND THE "STANDARD DETAILS FOR PUBLIC WORKS, CITY AND COUNTY OF HONOLULU, AND THE COUNTIES OF KAUA'I, MAUI, AND HAWAI'I. THE STANDARD DETAILS ARE AVAILABLE AT THE COUNTY OF KAUA'I CLERK'S OFFICE."
- 2. NO GRADING BETWEEN 7 P.M. TO 7 A.M. ON ANY GIVEN DAY OR ON SATURDAYS, SUNDAYS AND HOLIDAYS WITHOUT WRITTEN PERMISSION FROM THE COUNTY ENGINEER AND THE STATE DEPARTMENT OF HEALTH.
- 3. CONTRACTOR TO NOTIFY PUBLIC WORKS DEPARTMENT FIVE (5) BUSINESS DAYS PRIOR TO COMMENCING ANY GRADING WORK. WHEN COMPLETED AND READY FOR FINAL INSPECTION; NOTIFY PUBLIC WORKS DEPARTMENT INSPECTION SECTION.
- 4. CONSTRUCTION PLANS ARE VALID FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL, IF CONSTRUCTION DOES NOT COMMENCE WITHIN THE ONE-YEAR TIME FROM THE DATE OF APPROVAL, THE CONSTRUCTION PLANS SHALL BE RESUBMITTED TO ALL REVIEWING AND APPROVING AGENCIES FOR REVIEW, APPROVAL AND RECERTIFICATION OF THE PLAN.
- 5. ALL GRADING, GRUBBING AND STOCKPILING WORK SHALL BE PERFORMED IN ACCORDANCE WITH COUNTY OF KAUA'I ORDINANCE NO. 808.
- 6. AFTER EACH RAINFALL EVENT, THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS, AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE COUNTY ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
- 7. DURING CLEANING OPERATIONS, THE CONTRACTOR SHALL SUPPLY A WATER TRUCK FOR DUST CONTROL PURPOSES UNTIL THE VEGETATION HAS RE-ESTABLISHED ITSELF. EXCESS WATER, INCLUDING SILT AND DIRT, SHALL NOT BE ALLOWED TO RUN-OFF THE PROPERTY.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OVERTIME AND/OR NIGHT WORK PAYMENTS FOR COUNTY'S STAFF AND INSPECTION PERSONNEL INCLUDING CONSULTANTS, WHEN THE CONTRACT REQUIRES OVERTIME OR NIGHT WORK TO BE PERFORMED, OR DIRECTS THE CONTRACTOR TO WORK ADDITIONAL SHIFTS OR OVERTIME FOR COUNTY'S CONVENIENCE.
- BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE EMPLOYED AT ALL TIMES TO THE MAXIMUM EXTENT PRACTICABLE TO PREVENT DAMAGE BY SEDIMENTATION, EROSION OR DUST TO STREAMS, WATERCOURSES, NATURAL AREAS AND THE PROPERTY OF OTHERS.
- 10. IF SYSTEM CONDITIONS REQUIRE NON-EMERGENCY NIGHT TIME WORK DURING THE AUTUMN SEABIRD FALL SEASON (SEPTEMBER 15 THROUGH DECEMBER 15), USE OF LIGHTING SHALL BE RESTRICTED BETWEEN 9:00 P.M. TO 4:30 A.M. IF LIGHTING OF THE WORK AREA IS REQUIRED IN SUCH SITUATION, ALL LIGHTS SHALL BE SHIELDED (MINIMUM LIGHT SPILL TOWARDS THE SKY) AND DIRECTED DOWNWARDS TO THE MAXIMUM EXTENT PRACTICABLE. MINIMUM REQUIREMENTS FOR LIGHTING BY HIOSH AND OSHA SHALL BE PROVIDED AND ASSURED BY THE CONTRACTOR. THE CONTRACTOR SHALL TRAIN ALL EMPLOYEES WORKING AT NIGHT (RECORDS RETAINED BY THE CONTRACTOR) ON HOW TO HANDLE ANY RETRIEVED DOWNED BIRDS AND SHALL HAVE APPROPRIATE EQUIPMENT AS APPROVED BY SAVE OUR SHEARWATERS (SOS) ON SITE TO HOLD AND TRANSPORT ANY RETRIEVED BIRDS TO A SOS FACILITY. THIS REQUIREMENT DOES NOT ALLOW LIGHTING AS MAY BE RESTRICTED BY OTHER GOVERNMENT AGENCIES.
- 11. PRIOR TO STARTING ANY EXCAVATION ACTIVITIES, THE CONTRACTOR SHALL CONTACT THE HAWAI'I ONE CALL CENTER AT 1-866-423-7287

WATER POLLUTION AND EROSION CONTROL NOTES (COUNTY)

1. GENERAL:

- A. THE CONTRACTOR IS REMINDED OF THE REQUIREMENTS OF SECTION 209-WATER POLLUTION AND EROSION CONTROL AND SECTION 620 -DUST CONTROL IN THE "HAWAI'I STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2005," AS AMENDED. SECTION 209 DESCRIBES BUT IS NO LIMITED TO: SUBMITTAL REQUIREMENTS; SCHEDULING OF A WATER POLLUTION AND EROSION CONTROL CONFERENCE WITH THE COUNTY ENGINEER; CONSTRUCTION REQUIREMENTS; METHOD OF MEASUREMENT; AND BASIS OF PAYMENT. NO WORK SHALL COMMENCE WITHOUT A BMP PLAN APPROVED BY THE DEPARTMENT OF HEALTH.
- B. THE CONTRACTOR SHALL FOLLOW THE GUIDELINES IN THE "INTERIM BEST MANAGEMENT PRACTICES MANUAL FOR CONSTRUCTION SITE FOR COUNTY OF KAUA'I" APRIL 2004 IN DEVELOPING, INSTALLIUNG AND MAINTAING THE BEST MANAGEMENT PRACTICES (BMP'S) FOR THE PROJECT. THE CONTRACTOR MAY SUBMIT ALTERNATE METHODS TO THE COUNTY FOR ACCEPTANCE.
- C. THE CONTACTOR SHALL KEEP A COPY OF THE APPROVED BMP PLAN, NOI, ETC. ON THE PROJECT SITE. THE BMP PLAN SHALL BE UPDATED TO REFLECT ANY CHANGES MADE DURING THE COURSE OF CONSTRUCTION FOR THE DURATION OF THE PROJECT
- D. THE COUNTY ENGINEER MAY ASSESS LIQUIDATED DAMAGES OF UP TO \$27,500 FOR NONCOMPLIANCE OF EACH BMP REQUIREMENT AND EACH REQUIREMENT STATED IN SECTION 209. FOR EVERYDAY OF NONCOMPLIANCE. THERE IS NO MAXIMUM LIMIT ON THE AMOUNT ASSESSED PER DAY.
- E. THE COUNTY ENGINEER MAY DEDUCT THE COST FROM THE PROGRESS PAYMENT FOR ALL CITATIONS RECEIVED BY THE DEPARTMENT FOR NON-COMPLIANCE, OR THE CONTRACTOR/OWNER SHALL REIMBURSE THE STATE AND/OR COUNTY FOR THE FULL AMOUNT OF THE OUTSTANDING COST INCURRED BY THE STATE AND/OR COUNTY.

2. WASTE DISPOSAL:

- A. WASTE MATERIALS: ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER THAT DOES NOT LEAK. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER SHALL BE EMPTIED A MINIMUM OF TWICE PER WEEK OR AS OFTEN AS IS DEEMED NECESSARY. NO CONSTRUCTION WASTE MATERIAL SHALL BE BURIED ONSITE. THE CONTRACTOR'S SUPERVISORY PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
- B. HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIAL SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS OR BY THE MANUFACTURER. THE CONTRACTOR'S SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES FOR FOLLOWED.
- C. SANITARY WASTE: ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK, OR AS REQUIRED.
- EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES: A. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS FOLLOWING ANY RAINFALL EVENT OF 0.5 INCHES OR GREATER.
 - B. ALL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS AFTER THE INSPECTION
 - C. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
 - D. SILT SCREEN OF FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO VERY THAT THE FABRIC FENCE IS SECURELY ATTACHED TO THE FENCE POST OR CONCRETE SLAB AND TO VERIFY THAT THE FENCE POST ARE FIRMLY IN THE GROUND.
 - E. TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASH OUTS AND HEALTHY GROWTH.
 - F. THE CONTRACTOR SHALL SUBMIT TO THE COUNTY ENGINEER A MAINTENANCE INSPECTION REPORT PROMPTLY AFTER EACH WEEKLY INSPECTION.
 - G. THE CONTRACTOR SHALL SELECT A MINIMUM OF THREE PERSONNEL WHO SHALL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
 - H. PERSONNEL SELECTED FOR THE INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL RECEIVE TRAINING FROM THE CONTRACTOR. THEY SHALL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.
 - I. ALL SLOPES AND EXPOSED AREAS SHALL BE GRASSED AS FINAL GRADES HAVE BEEN ESTABLISHED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA IN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED OR EXPOSED FOR MORE THAN 15 DAYS SHALL BE GRASSED IN ORDER TO PREVENT DUST EMISSION, EROSION AND SILT RUNOFF. AREAS WITH IMPORTED SOILS SHALL BE GRASSED NOT MORE THAN 5 WORKING DAYS AFTER THE FINAL GRADES HAVE BEEN ESTABLISHED.
 - J. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
- GOOD HOUSE KEEPING BEST MANAGEMENT PRACTICES: A. MATERIALS POLLUTION PREVENTION PLAN.
 - a. APPLICABLE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION. OTHER MATERIALS AND SUBSTANCES NOT LISTED BELOW SHALL BE ADDED TO THE INVENTORY OF THE CONSTRUCTION CONTRACTOR'S SITE-SPECIFIC BMP PLAN: CONCRETE, FERTILIZERS, DETERGENTS, PETROLEUM BASED PRODUCTS, PAINTS (ENAMEL & LATEX), CLEANING SOLVENTS, METAL STUDS, WOOD, TAR, AND MASONRY BLOCK.
 - b. MATERIAL MANAGEMENT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF. AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT AS IS REQUIRED TO DO THE JOB.

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

- c. ALL MATERIALS STORED ONSITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND IF POSSIBLE UNDER A ROOF OR OTHER ENCLOSURE.
- d. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURE'S LABEL
- e. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- f. A PRODUCT SHALL BE USED UP COMPLETELY BEFORE DISPOSING OF THE CONTAINER.
- g. MANUFACTURER'S RECOMMENDATION FOR PROPER USE AND DISPOSAL SHALL BE
- h. THE CONTRACTOR SHALL CONDUCT A DAILY INSPECTION TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

B. HAZARDOUS MATERIAL POLLUTION PREVENTION PLAN:

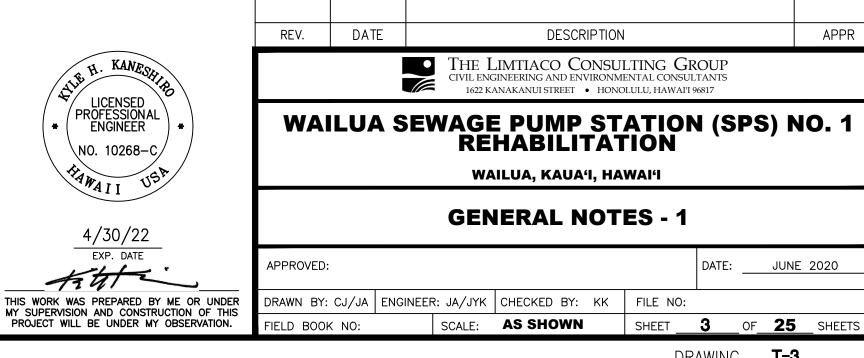
- a. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- b. ORIGINAL LABELS AND MATERIALS SAFETY DATA SHEETS (MSDS) SHALL BE RETAINED AND MADE AVAILABLE TO THE COUNTY ENGINEER UPON REQUEST.
- c. SURPLUS PRODUCTS SHALL BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR LOCAL AND STATE RECOMMENDED REGULATIONS.
- C. ONSITE AND OFFSITE PRODUCT SPECIFIC PLANS:
- THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ONSITE:
- a. PETROLEUM BASED PRODUCTS: ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.
- b. FERTILIZERS: APPLY FERTILIZED USED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, WORK FERTILIZER INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE SHALL BE IN A COVERED
- c. PAINTS: SEAL AND STORE ALL CONTAINER WHEN NOT REQUIRED FOR USE. DO NOT DISCHARGE EXCESS PAINT TO THE ROADWAY DRAINAGE SYSTEM. DISPOSE PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTION OR STATE AND LOCAL REGULATIONS.
- d. CONCRETE TRUCKS: WASH OUT OR DISCHARGE CONCRETE TRUCK DRUM WASH WATER ONLY AT A DESIGNATED SITE. DO NOT DISCHARGE WATER IN ROADWAY DRAINAGE SYSTEM OR WATERS OF THE UNITED STATES. CONTACT DRINKING WATER BRANCH, DEPARTMENT OF HEALTH AT (808) 586-4258 TO RECEIVE PERMISSION TO DESIGNATE A DISPOSAL SITE. CLEAN DISPOSAL SITE AS REQUIRED OR AS REQUESTED BY THE OWNER'S REPRESENTATIVE.

D. SPILL CONTROL PLAN:

- a. POST A SPILL PREVENTION PLAN TO INCLUDE MEASURES TO PREVENT AND CLEAN UP EACH SPILLWAY.
- b. THE CONTRACTOR SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. DESIGNATE AT LEAST THREE SITE PERSONNEL WHO SHALL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS SHALL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. POST THE NAMES OF RESPONSIBLE SPILL PERSONNEL IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.
- c. CLEARLY POST MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP. MAKE SITE PERSONNEL AWARE OF THE PROCEDURES AND THE LOCATION OF INFORMATION AND CLEANUP SUPPLIES.
- d. KEEP MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP IN THE MATERIAL STORAGE AREA ONSITE.
- e. CLEAN UP ALL SPILLS IMMEDIATELY AFTER DISCOVERY.
- f. KEEP THE SPILL AREA WELL VENTILATED. PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH HAZARDOUS SUBSTANCES.
- g. REPORT SPILLS OF TOXIC HAZARDOUS MATERIAL TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

ENVIRONMENTAL NOTES

- IN ACCORDANCE WITH CHAPTER 11-60.1, AIR POLLUTION CONTROL, TITLE 11, HAWAI'I ADMINISTRATIVE RULES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT EFFECTIVE CONTROL MEASURES ARE PROVIDED TO MINIMIZE OR PREVENT ANY VISIBLE DUS EMISSION CAUSED BY THE CONSTRUCTION WORK FROM IMPACTING THE SURROUNDING AREA INCLUDING THE OFF-SITE ROADWAYS USED TO ENTER/EXIT THE PROJECT. THESE MEASURE INCLUDE BUT ARE NOT LIMITED TO THE USE OF WATER WAGONS, SPRINKLER SYSTEM, DUST FENCES, ETC.
- IN ACCORDANCE WITH CHAPTER 11-55, WATER POLLUTION CONTROL AND CHAPTER 11-54, WATER QUALITY STANDARDS, TITLE 11, HAWAI'I ADMINISTRATIVE RULES, THE PROPERTY OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ENSURING THAT THE BEST MANAGEMENT PRACTICES (BMP) TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENTS, DEBRIS AND OTHER WATER POLLUTANTS INTO STATE WATERS IS PROVIDED AT ALL TIMES.
- IN ACCORDANCE WITH CHAPTER 11-58, SOLID WASTE MANAGEMENT CONTROL, TITLE 11, HAWAI'I ADMINISTRATIVE RULES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT GRUB MATERIAL, DEMOLITION WASTE AND CONSTRUCTION WASTE GENERATED BY THE PROJECT ARE DISPOSED OF IN A MANNER OR AT A SITE APPROVED BY THE STATE DEPARTMENT OF HEALTH. DISPOSAL OF ANY OF THESE WASTES BY BURNING IS PROHIBITED
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL APPLICABLE PERMITS FROM THE DEPARTMENT OF HEALTH INCLUDING BUT NOT LIMITED TO NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), NOTICE OF INTENT AND GENERAL PERMIT FOR STORM WATER, HYDROSTATIC TEST AND DEWATERING DISCHARGES PRIOR TO COMMENCING CONSTRUCTION. NPDES PERMIT SHALL BE REQUIRED PRIOR TO GRADING OR GRUBBING WORK OVER AN AREA OF ONE ACRE OR MORE.
- AFTER EACH RAINFALL EVENT, THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM THIS WORK AND DEPOSITED IN DRAINAGE FACILITIES. ROADWAYS AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE COUNTY ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
- 6. BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE EMPLOYED AT ALL TIMES TO THE MAXIMUM EXTENT PRACTICABLE TO PREVENT DAMAGE BY SEDIMENTATION. EROSION OR DUS TO STREAMS, WATER COURSES, NATURAL AREAS AND THE PROPERTY OF OTHERS.
- THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS FOR ALL PROJECTS WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND. THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAI'I AND HAS SATISFIED ANY OTHER PERMITTING REQUIREMENTS OF THE NPDES PERMIT PROGRAM.
- IN ACCORDANCE WITH CHAPTER 11-46, COMMUNITY NOISE, HAWAI'I ADMINISTRATIVE RULES THE CONTRACTOR AND THE PROPERTY OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING EFFECTIVE CONTROL MEASURES TO MINIMIZE OR PREVENT CONSTRUCTION RELATED NOISE FROM IMPACTING THE RESIDENTS IN THE IMMEDIATE AREA. IF REQUIRED, NOISE REDUCTION MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR DURING THE CONSTRUCTION WORK.
- THE PROPERTY MAY HARBOR RODENTS WHICH WILL BE DISPERSED TO THE SURROUNDING AREAS WHEN THE SITE IS CLEARED. IN ACCORDANCE WITH CHAPTER 11-26, ENTITLED VECTOR CONTROL OF TITLE 11, HAR, THE APPLICANT SHALL ASCERTAIN THE PRESENCE OR ABSENCE OF RODENTS ON THE PROPERTY. SHOULD THE PRESENCE OF RODENTS BE DETERMINED, THE APPLICANT SHALL ERADICATE THE RODENTS PRIOR TO CLEARING THE SITF.
- 10. A COPY OF THE PLANS, CONSTRUCTION SCHEDULE AND/OR WRITTEN MEASURES THAT IS REQUIRED TO BE SUBMITTED BY THE CONTRACTOR (DUST CONTROL MEASURES/PLANS) SHOULD ALSO BE SENT TO THE DEPARTMENT OF HEALTH FOR MONITORING PURPOSES.



DATE: JUNE 2020

APPR

WASTEWATER NOTES

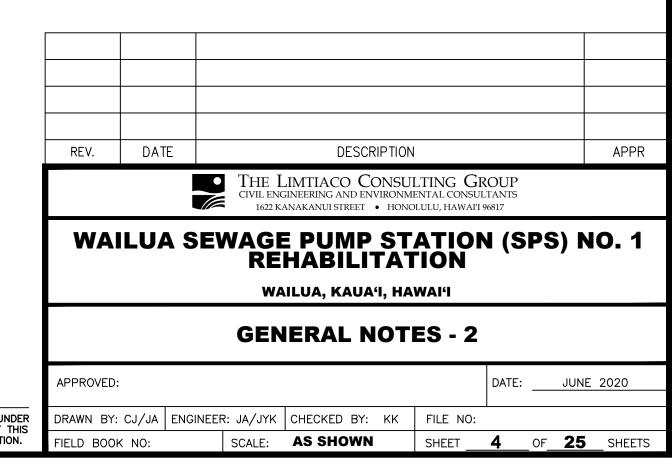
- 1. ALL SEWER LINES AND APPURTENANCES SHALL CONFORM TO THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2005", AS AMENDED; AND "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, DATED SEPTEMBER 1984", AND AS AMENDED, (HEREINAFTER REFERRED TO AS STANDARD DETAILS).
- 2. ALL SEWER LINES AND APPURTENANCES SHALL FOLLOW THE "SEWER DESIGN STANDARDS" OF THE COUNTY OF KAUAI DATED JUNE 1973, AND AS AMENDED, (HEREINAFTER REFERRED TO AS SEWER STANDARDS).
- 3. THE COUNTY ENGINEER OR HIS DULY AUTHORIZED REPRESENTATIVE HAS THE RIGHT TO STOP CONSTRUCTION SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED PLANS AND SPECIFICATIONS, OR DETRIMENTAL TO THE PUBLIC HEALTH, SAFETY AND INTEREST.
- 4. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, IF DAMAGED DURING CONSTRUCTION, SHALL BE REPAIRED BY THE CONTRACTOR AND THE CONTRACTOR SHALL PAY ALL EXPENSES.
- 5. SHOULD THE CONTRACTOR EXCAVATE BEYOND THE TRENCH PAYMENT WIDTH, AS SPECIFIED IN THE STANDARD DETAILS, AND SUCH ACTION RESULT IN A GREATER LOAD TO THE PIPE, THE CONTRACTOR SHALL PROVIDE, AT THE CONTRACTOR'S EXPENSE, A HIGHER CLASS OF BEDDING MATERIAL APPROVED BY THE ENGINEER. THAT WILL WITHSTAND THE ADDED LOAD.
- 6. WHERE THE CLEARANCE BETWEEN A SEWER OR EFFLUENT LINE AND A NEW OR EXISTING WATER LINE IS 18 INCHES OR LESS, THE SEWER LINE SHALL BE CONCRETE JACKETED IN ACCORDANCE WITH THE SEWER STANDARDS.
- 7. ALL BACKFILL FOR EFFLUENT LINE TRENCHES SHALL BE COMPACTED IN EIGHT (8) INCH LIFTS TO A MINIMUM OF 95% OF ITS MAXIMUM DENSITY.
- 8. PRIOR TO INSTALLATION OF FLOW METERS AND FINAL ACCEPTANCE, ALL EFFLUENT LINES INSTALLED SHALL BE FLUSHED WITH WATER AND ACCUMULATED CONSTRUCTION DEBRIS AND OTHER FOREIGN MATERIALS SHALL BE REMOVED AT CONTRACTOR'S EXPENSE.
- 9. THE CONTRACTOR SHALL MAINTAIN A "JOB SITE COPY" OF THE PLANS AT THE PROJECT SITE WHICH WILL RECORD ANY CHANGES MADE IN THE FIELD. "AS—BUILT" DRAWINGS SHALL BE SUBMITTED AS A CONDITION FOR FINAL ACCEPTANCE OF THE PROJECT.
- 10. THE WASTEWATER TREATMENT PLANT, PUMP STATIONS AND OTHER OPERATING FUNCTIONS OF THE SEWER SYSTEM MUST BE IN OPERATION AT ALL TIMES. CONSTRUCTION WORK SHALL BE COORDINATED WITH THE COUNTY OF KAUAI, DEPARTMENT OF PUBLIC WORKS TO MINIMIZE INTERRUPTIONS IN SERVICES, AND TO SCHEDULE POWER SHUT DOWNS AND GENERATOR OPERATIONS. OVERTIME COSTS, IF REQUIRED BY COUNTY EMPLOYEES TO ACCOMMODATE CONSTRUCTION WORK, SHALL BE CHARGEABLE TO THE CONTRACTOR.
- 11. THE CONTRACTOR SHALL NOTIFY THE DIVISION OF WASTEWATER MANAGEMENT SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF SEWER WORK. IN THE EVENT THAT ANY CHANGES IN THE ALIGNMENT OR GRADE FOR THE PROPOSED SEWERS ARE REQUIRED DUE TO UNFORESEEN CONFLICT WITH UNDERGROUND UTILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND PROVIDE THE ENGINEER THE NECESSARY DATA IN ORDER THAT THE ENGINEER WILL BE ABLE TO DETERMINE WHAT CHANGES IN ALIGNMENT OR GRADE ARE REQUIRED.
- 12. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS RESEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING THE AREA.
- 13. THE CONTRACTOR SHALL VERIFY THE LOCATION AND INVERT OF ALL EXISTING UTILITIES WHETHER SHOWN OR NOT SHOWN AS REQUIRED.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN EXISTING SEWER FLOW CONDITIONS UNTIL FINAL CONNECTION IS MADE. THE CONTRACTOR SHALL PROVIDE FOR ALL NECESSARY BY—PASSES, PUMPS, GENERATORS, ETC. TO INSURE A CONTINUOUS UNINTERRUPTED FLOW OF SEWAGE AT ALL TIMES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO PIPE, PUMPS AND STRUCTURE INSTALLATION.
- 15. THE CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL DAMAGES AND COSTS LEVIED BY THE STATE DEPARTMENT OF HEALTH (DOH) FOR ANY SEWAGE SPILLS CAUSED AS A RESULT OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE DOH, UTILIZE APPROPRIATE SAMPLING AND ANALYZING PROCEDURES AND ANY REMEDIATION ACTION REQUIRED BY THE DOH. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY MATERIAL COST AND OVERTIME LABOR COST GENERATED BY THE COUNTY AS A RESULT OF THE SPILL.
- 16. CRUSHED ROCK CRADLE SHALL BE REQUIRED FOR ALL SEWER LINE, AND OTHER CONSTRUCTION AS INDICATED ON THE CONSTRUCTION PLANS EXCEPT IN AREAS OF UNSUITABLE SOILS. THE ENGINEER SHALL UTILIZE EVERY EFFORT TO DETERMINE THE GROUND CONDITIONS DURING DESIGN, HOWEVER IF UNANTICIPATED GROUND CONDITIONS OCCUR DURING CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY TO RECTIFY THE SITUATION.
- 17. SEWER PIPE MATERIAL SHALL BE AS INDICATED ON THE CONSTRUCTION DRAWINGS.
- 18. BEFORE CONSTRUCTION COMMENCES, THE CONTRACTOR SHALL SCHEDULE AND DOCUMENT A PRE-CONSTRUCTION MEETING WITH ALL AGENCIES WITH UTILITIES WHICH MAY BE AFFECTED BY THE WORK.
- 19. THE ENGINEER WILL EXPEND EVERY EFFORT TO IDENTIFY AND LOCATE EXISTING UTILITIES IN THE CONSTRUCTION AREA; AND THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES BY HAND EXPLORATION OR OTHER MEANS WHICH WILL NOT DAMAGE THE EXISTING UTILITIES, AND THROUGH DIRECT CONTACT WITH THE UTILITY COMPANIES, LAND OWNERS, LESSEES, ETC. THE CONTRACTOR SHALL MAINTAIN A LOG OF ITS PERSONAL CONTACT WITH THE AFOREMENTIONED AND SUBMIT A COPY TO THE ENGINEER PRIOR TO STARTING CONSTRUCTION.
- 20. UTILITY LINES RUNNING PARALLEL TO SEWER OR SEWER EFFLUENT LINES SHALL MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF 24 INCHES MEASURED FROM THE OUTSIDE FACE AND VERTICAL TANGENT OF THE PIPE DIAMETER. UTILITY LINES CROSSING THE SEWER LINE SHALL MAINTAIN A MINIMUM VERTICAL SEPARATION OF 24 INCHES. FOR UTILITY LINES OTHER THAN WATER LINES, THE CROSSING CONDUIT SHALL BE IDENTIFIED WITH A PLASTIC TAPE MARKER INSTALLED PARALLEL TO THE UTILITY CONDUIT AND BE NOT LESS THAN 18 INCHES ABOVE THE UTILITY LINE AND EXTEND 4 FEET BEYOND THE SEWER LINE ON EACH SIDE. (OR SOME SIMILAR METHOD)

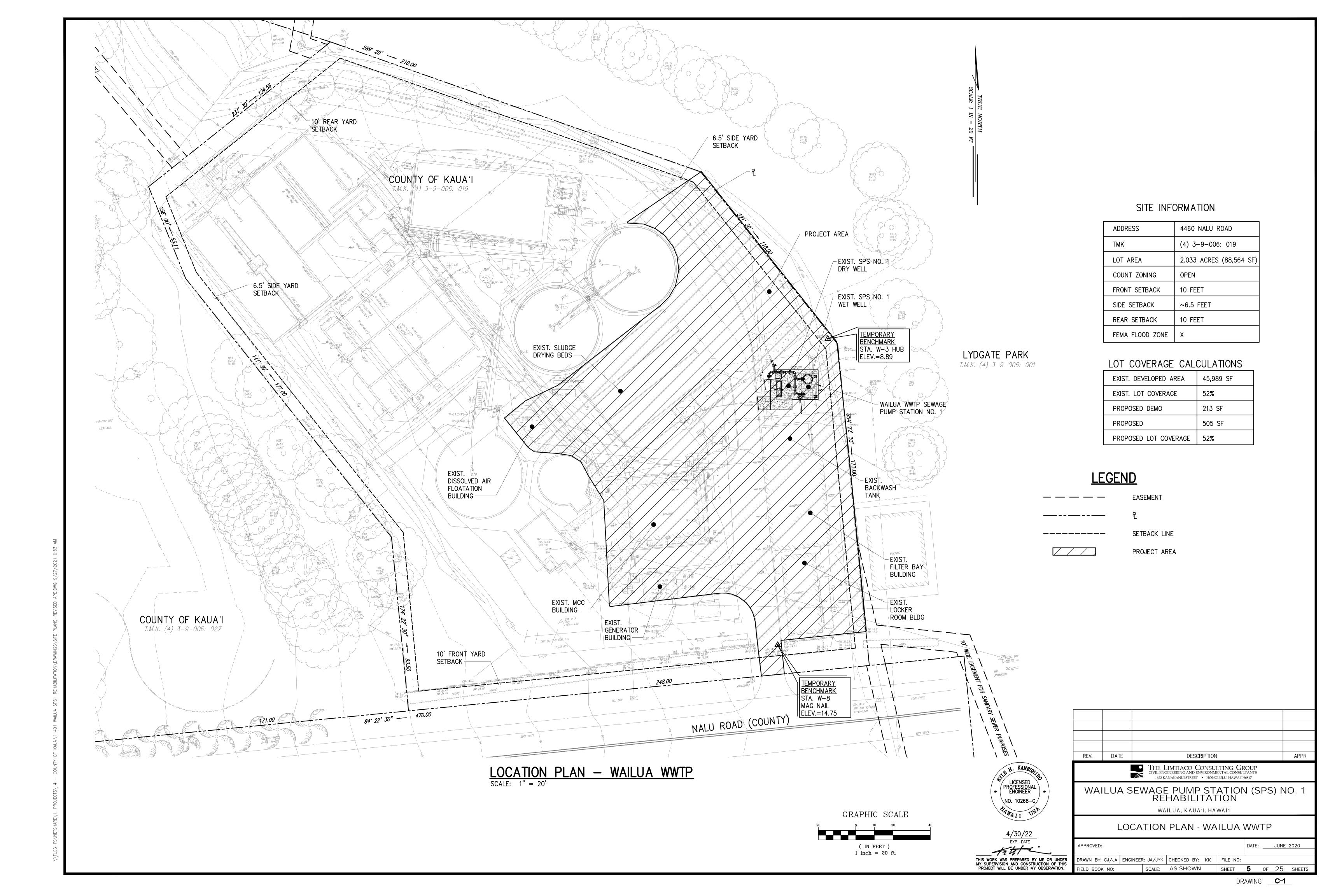
HISTORICAL PRESERVATION NOTES:

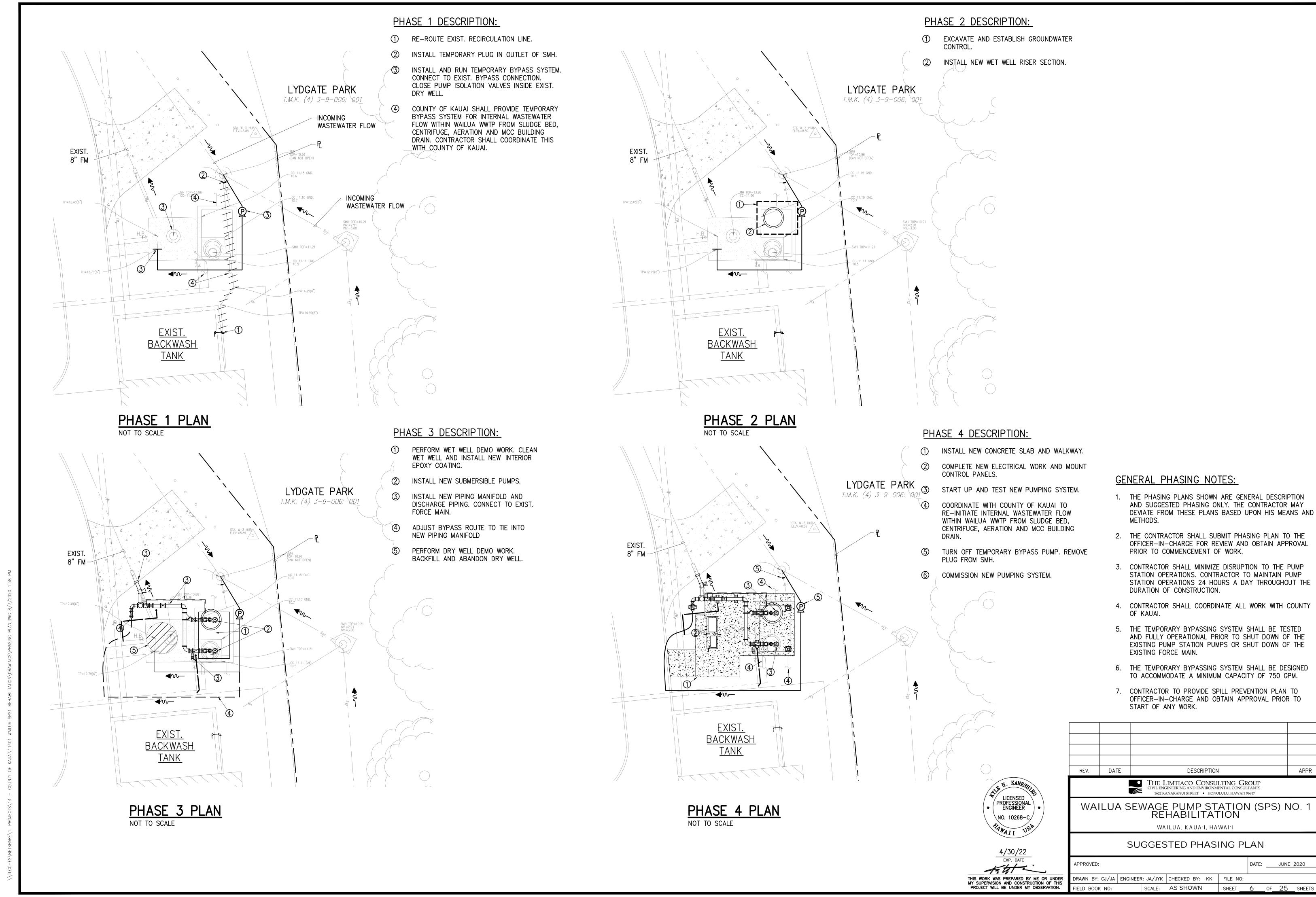
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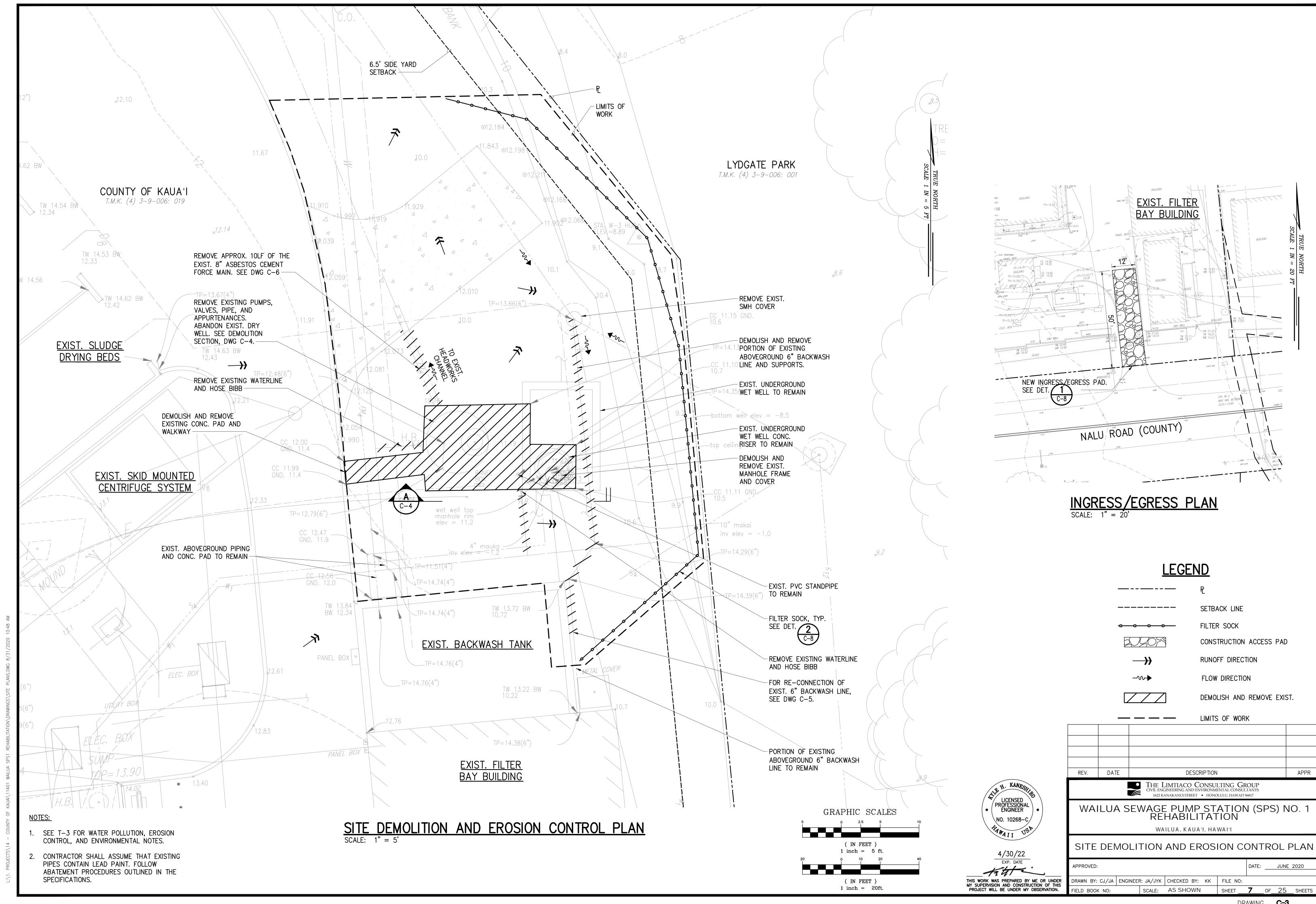
SHOULD HISTORIC REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATIONS OF SHELL OR CHARCOAL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL CEASE IMMEDIATELY IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR SHALL CORDON OFF THE AREA AND IMMEDIATELY NOTIFY THE PLANNING DEPARTMENT AT (808) 241–4050 AND THE STATE HISTORIC PRESERVATION DIVISION AT (808) 692–8015, WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND THE APPROPRIATE MITIGATION MEASURES, IF NECESSARY. IN ADDITION, IF HUMAN BURIAL ARE FOUND, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY OF KAUA'I POLICE DEPARTMENT.

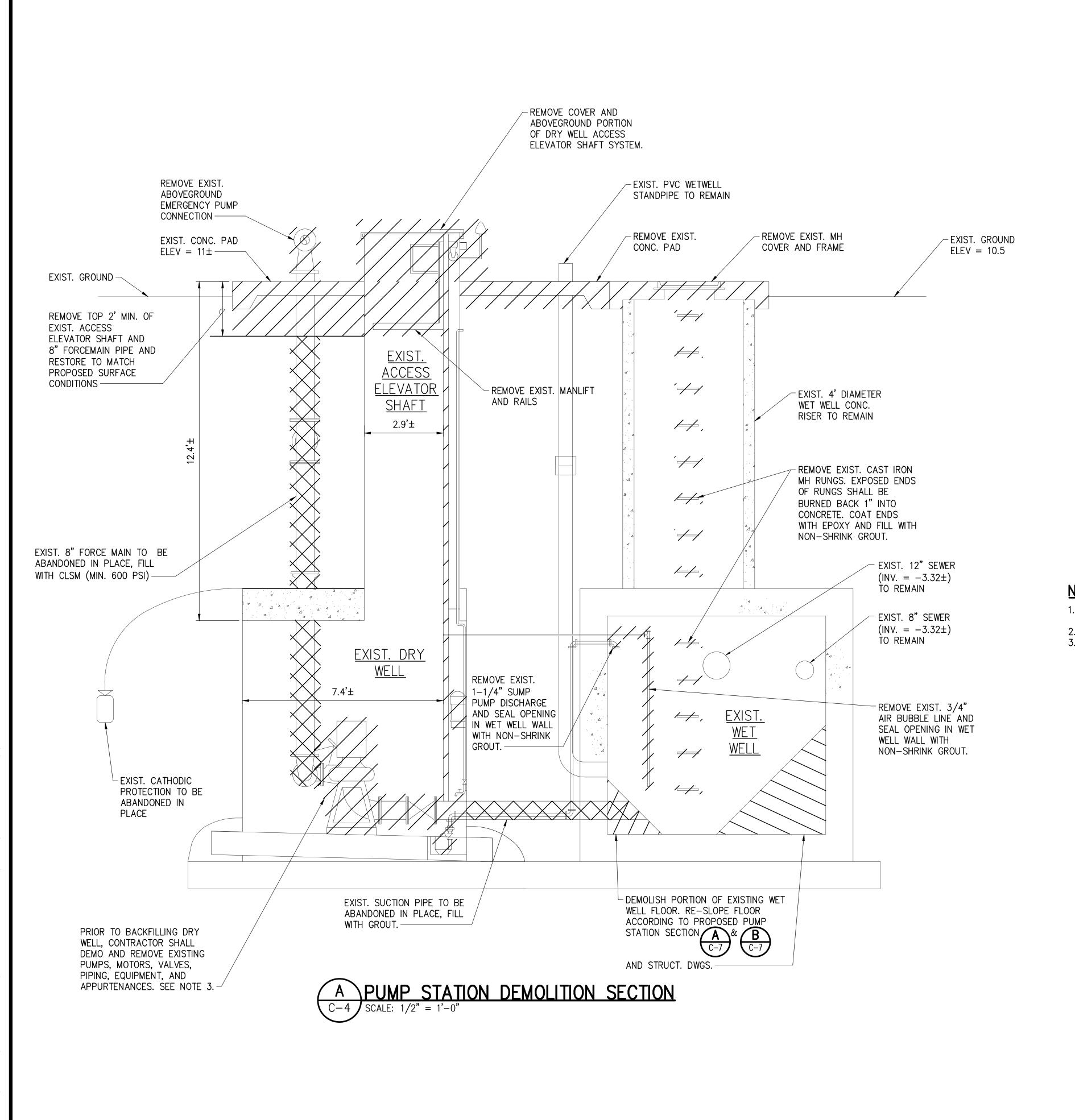












LEGEND

DEMOLISH AND REMOVE EXIST.

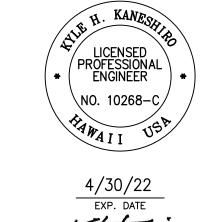
ABANDON IN PLACE AND FILL WITH CLSM

NOTES:

- 1. CONTRACTOR SHALL FILL EXISTING DRY WELL WITH CLSM. SEE C-7
- FOR REQUIREMENTS.
- 2. SEE STRUCTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK.
- DUE TO THE AGE OF THE EXISTING PUMP STATION, THE CONTRACTOR SHALL ASSUME THE PUMP STATION CONTAINS LEAD BASED PAINT. ALL HAZARDOUS MATERIALS SHALL BE HANDLED AND DISPOSED OF PER PLANS AND SPECIFICATIONS.

GRAPHIC SCALE

(IN FEET) 1/2 inch = 1 ft.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

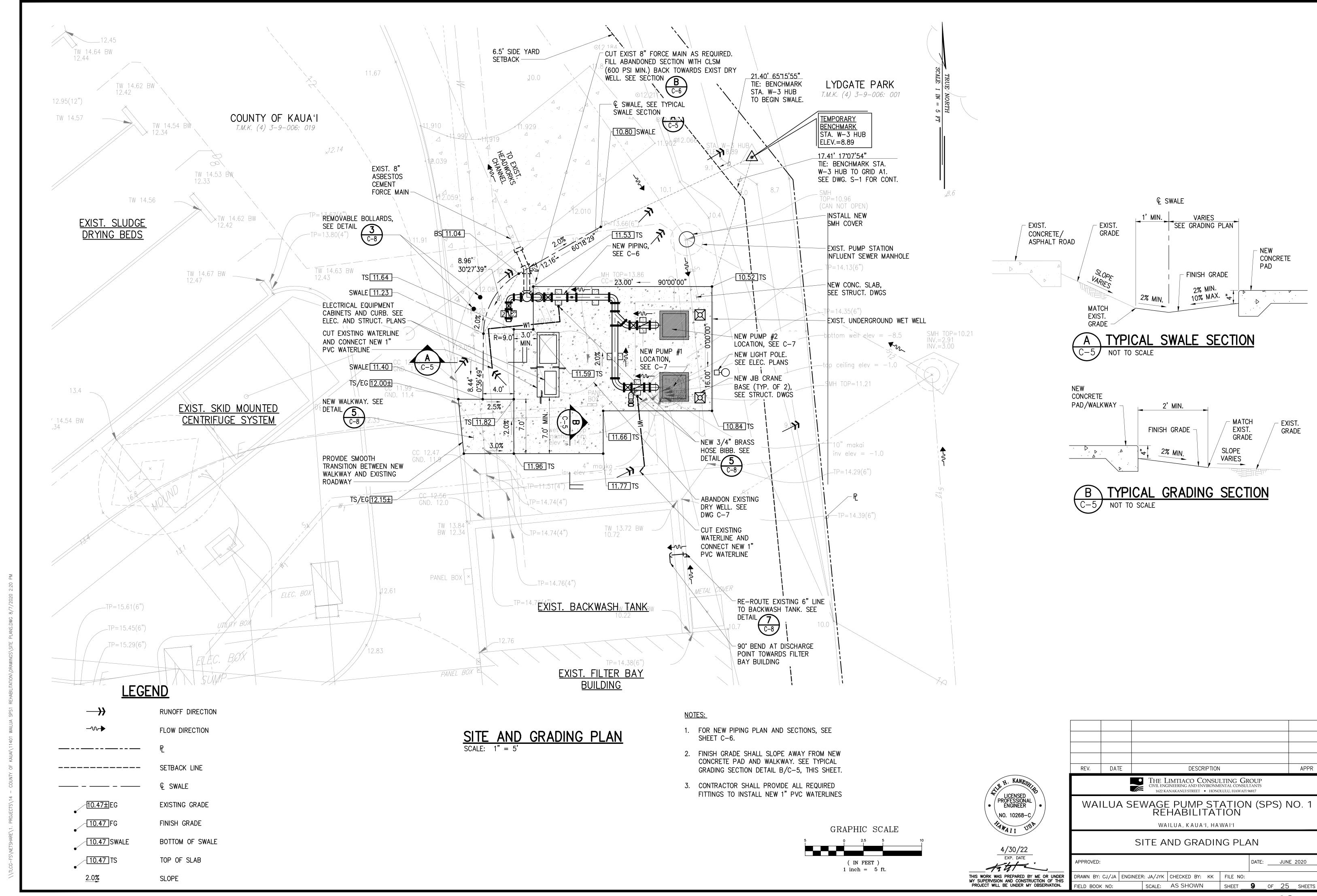
REV. DATE APPR DESCRIPTION THE LIMTIACO CONSULTING GROUP CIVIL ENGINEERING AND ENVIRONMENTAL CONSULTANTS 1622 KANAKANUI STREET • HONOLULU, HAWAI'I 96817

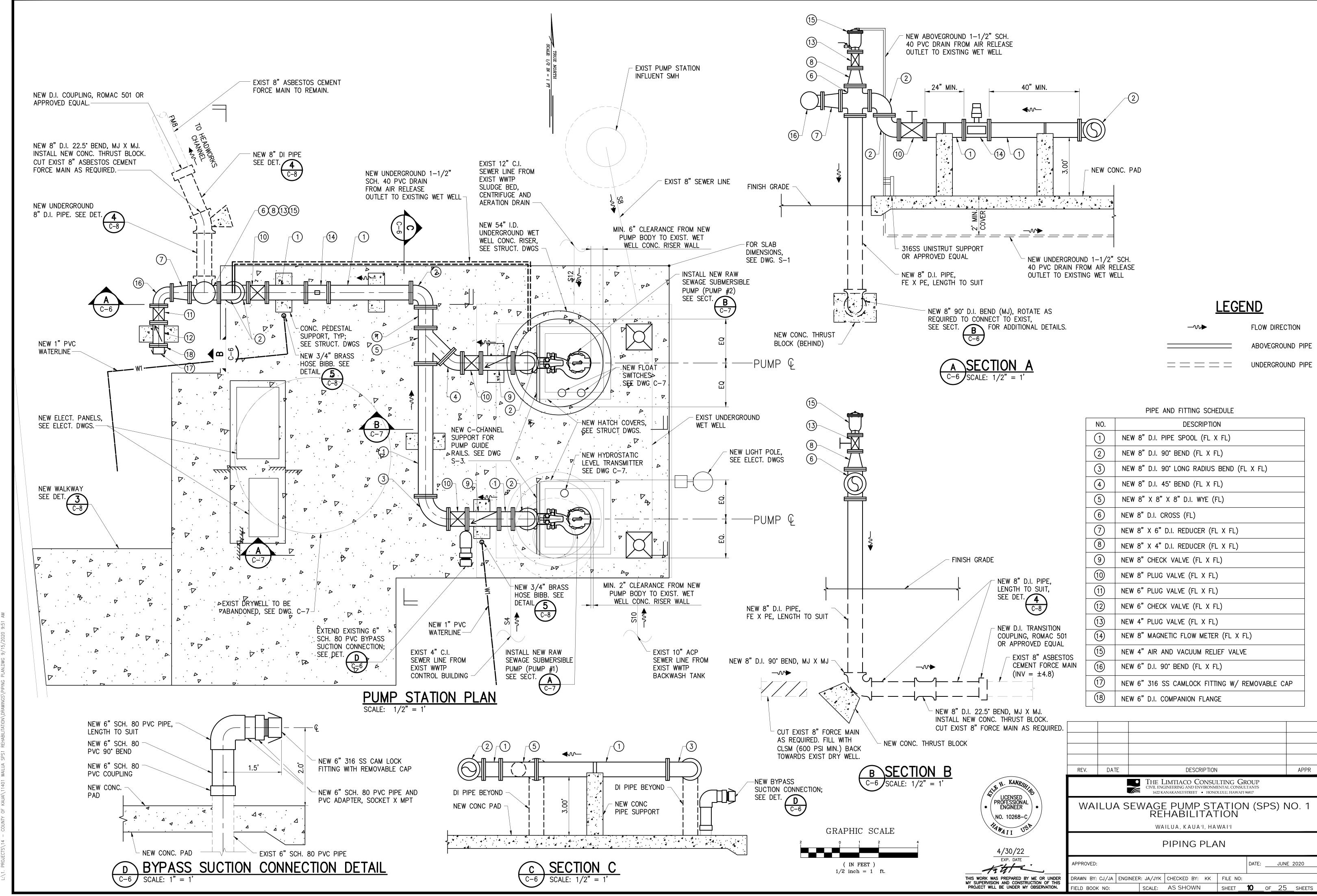
WAILUA SEWAGE PUMP STATION (SPS) NO. 1 REHABILITATION

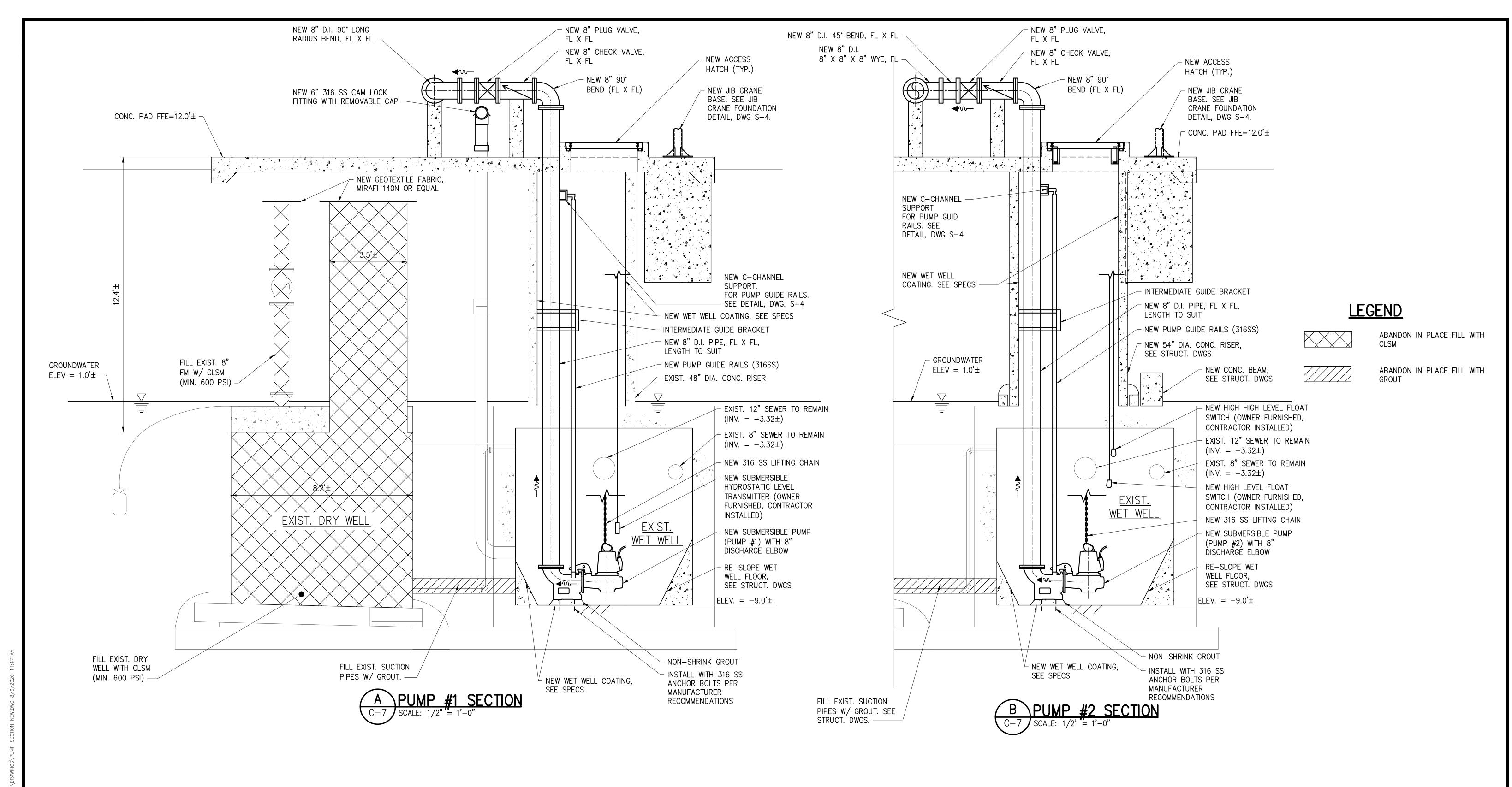
WAILUA, KAUA'I, HAWAI'I

PUMP STATION DEMOLITION SECTION

DATE: JUNE 2020 APPROVED: DRAWN BY: CJ/JA ENGINEER: JA/JYK CHECKED BY: KK | FILE NO: SCALE: AS SHOWN FIELD BOOK NO: SHEET 8 OF 25 SHEETS







LEGEND

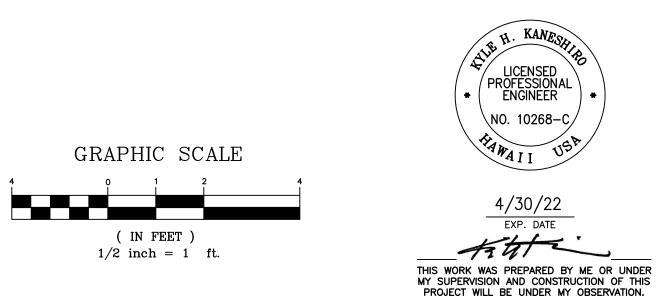
—**√**► FLOW DIRECTION

NOTES:

- 1. WET WELL ELEVATIONS SHALL BE DETERMINED BY THE
- COUNTY OF KAUAI.

 2. SEE STRUCTURAL AND ELECTRICAL DRAWINGS FOR
- ADDITIONAL WORK.
- 3. MAINTAIN ALL EXIST. INCOMING PIPES ENTERING WET WELL, UNLESS INDICATED OTHERWISE.

PUMP SCHEDULE											
PUMP	TYPE	GPM	HEAD (FT)	MAX RPM	HP	PH	٧	HZ	FLUID	MAKE & MODEL	CONFIGURATION
RAW SEWAGE PUMP (PUMP #1 AND PUMP #2)	SUBMERSIBLE	735	39	1800	11	3	208	60	RAW WASTEWATER	FLYGT NT 3127 MT, OR APPROVED EQUAL	PRIMARY & STANDBY



REV.	DATE	DESCRIPTION	APPR			
THE LIMTIACO CONSULTING GROUP CIVIL ENGINEERING AND ENVIRONMENTAL CONSULTANTS 1622 KANAKANUI STREET • HONOLULU, HAWAI'I 96817						

WAILUA SEWAGE PUMP STATION (SPS) NO. 1
REHABILITATION

WAILUA, KAUA'I, HAWAI'I

PROPOSED PUMP STATION SECTIONS

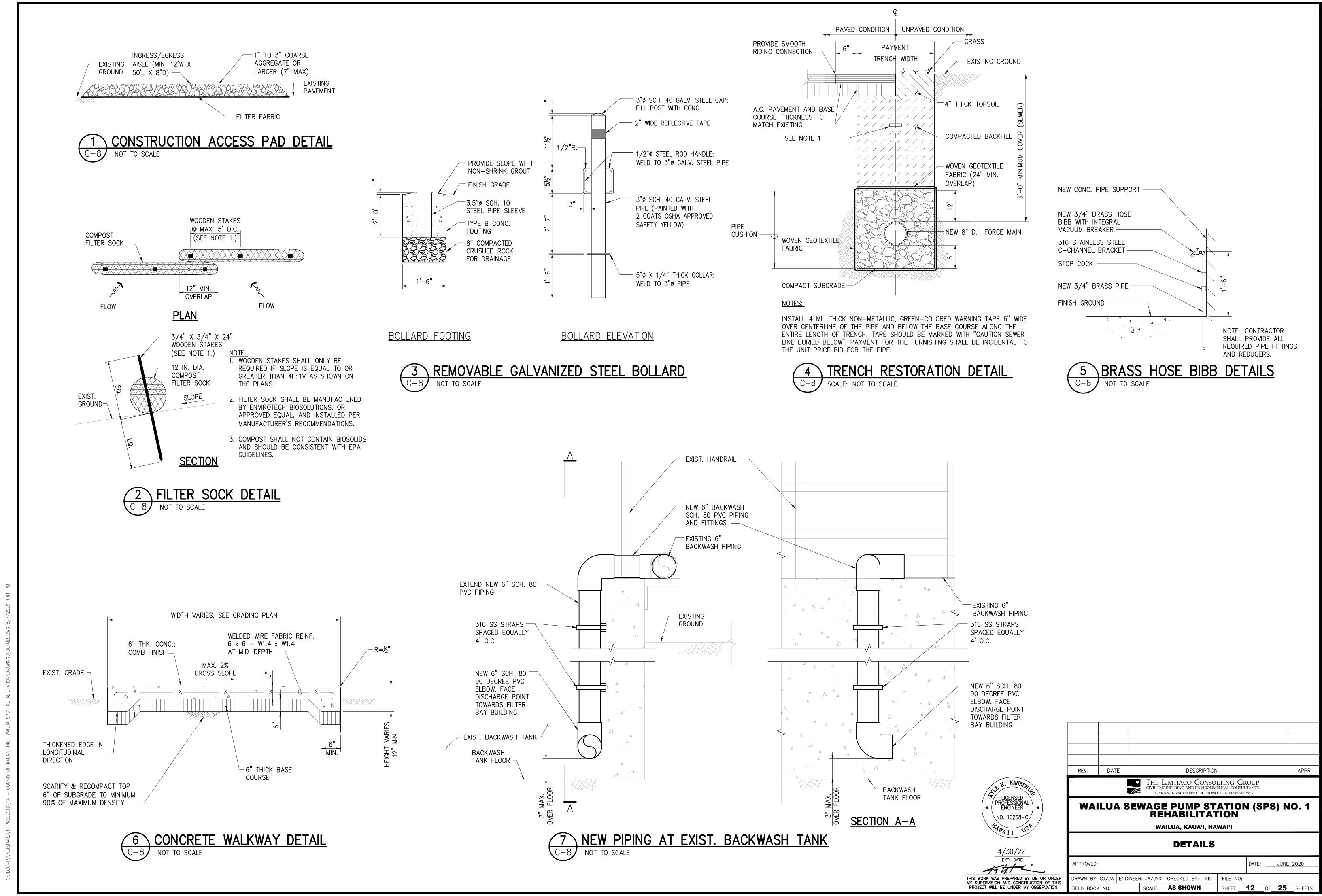
APPROVED:

DATE: _____JUNE_2020

DRAWN BY: CJ/JA ENGINEER: JA/JYK CHECKED BY: KK FILE NO:

FIELD BOOK NO: SCALE: AS SHOWN SHEET _____11 OF ____25 __ SHEETS

DRAWING <u>C-7</u>

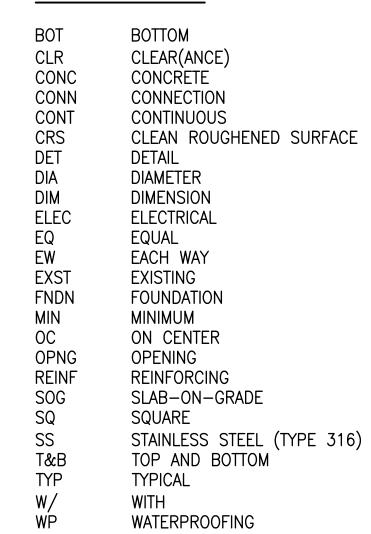


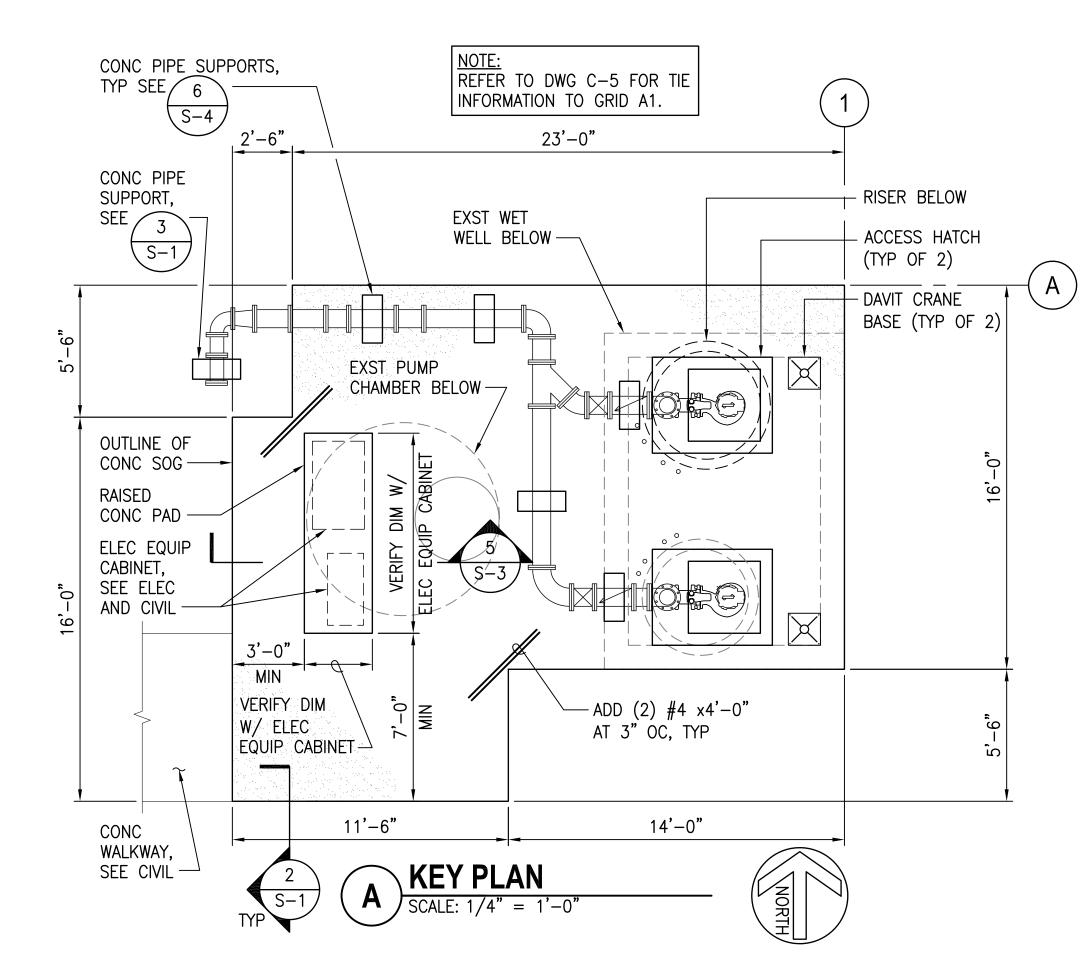
- 2. REINFORCING STEEL: ASTM A615, GRADE 60.
- 3. DOWELS SHALL BE SAME SIZE AND SPACING AND SHALL BE IN THE SAME PLANE AS THE BARS TO WHICH THEY ARE SPLICED UNLESS OTHERWISE INDICATED.
- 4. SPLICES AND EMBEDMENT LENGTHS SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS OTHERWISE INDICATED. IF THERE IS INSUFFICIENT DEPTH TO OBTAIN PROPER EMBEDMENT, EXTENT DOWEL TO FAR FACE OF MEMBER AND HOOK UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 5. REINFORCING BENDS AND HOOKS SHALL CONFORM TO ACI 318-05.
- 6. ALL WORK SHALL CONFORM TO APPLICABLE PORTIONS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPT. 1986, OF THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF KAUAI AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPT. 1984, AS AMENDED OF THE OF THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF KAUAI, UNLESS OTHERWISE INDICATED.
- 7. THE CONTRACTOR SHALL VERIFY ALL CONTRACT DOCUMENTS, DIMENSIONS, LOCATION OF UTILITIES PRIOR TO STARTING OF WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES.
- 8. SEE CIVIL DRAWINGS FOR PLAN AND PROFILE OF SEWER, INVERTS, FINISH ELEVATIONS AND PIPE AZIMUTHS.
- 9. ACCESS HATCH: BILCO TYPE J-AL 36x36 WITH TYPE 316 STAINLESS STEEL HARDWARE OR APPROVED EQUAL WITH FALL PROTECTION SAFETY GRATING.
- 10. CONTRACTOR SHALL PROVIDE DAVIT CRANE: THERN WINCHES AND CRANES, COMMANDER SERIES 5PT10 TYPE 316 STAINLESS STEEL FINISH, COMPLETE WITH STAINLESS STEEL WINCH, TYPE 316 STAINLESS STEEL BASES (LOCATIONS AS SHOWN), TYPE 316 STAINLESS STEEL WIRE ROPE (36 FEET MIN. LENGTH) OR APPROVED EQUAL. HOOK REACH SHALL BE A MINIMUM OF 66 INCHES.
- 11. NEW WET WELL RISER: 54 INCH DIAMETER REINFORCED CONCRETE PIPE CONFORMING TO ASTM C76, CLASS IV, WALL B, CONCRETE STRENGTH 4,000 PSI.

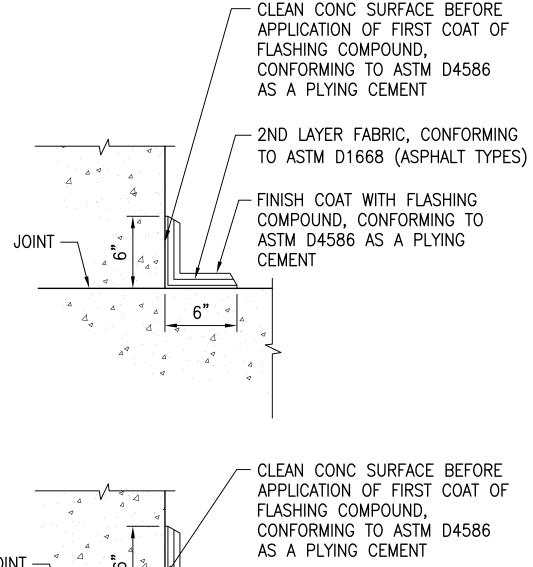
SPECIAL INSPECTION NOTES

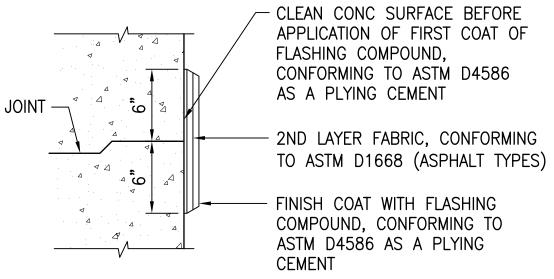
- 1. SPECIAL INSPECTION PROVISIONS OF CHAPTER 17 OF THE 2012 INTERNATIONAL BUILDING CODE GOVERN PORTIONS OF THE STRUCTURAL WORK AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS.
- 2. THE FOLLOWING STRUCTURAL WORK FOR THIS PROJECT REQUIRE SPECIAL **INSPECTIONS:**
 - A. CONCRETE
 - B. REINFORCING STEEL
- 3. THE MINIMUM RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE AS OUTLINED IN CHAPTER 17 OF THE "INTERNATIONAL BUILDING CODE" 2006 EDITION.
- 4. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO NOTIFY THE SPECIAL INSPECTOR OF ALL ITEMS REQUIRING SPECIAL INSPECTION A MINIMUM OF 72 HOURS IN ADVANCE.
- 5. SPECIAL INSPECTIONS DO NOT RELIEVE THE GENERAL CONTRACTOR OF HIS RESPONSIBILITIES TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND TO BE RESPONSIBLE FOR SAFETY ON THE JOBSITE.
- 6. THE SPECIAL INSPECTOR SHALL BE CERTIFIED AS A SPECIAL INSPECTOR BY THE BUILDING OFFICIAL OR THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
- 7. THE CONTRACTOR SHALL CHECK THE CONSTRUCTION PRIOR TO REQUESTING FOR INSPECTION. THE CONTRACTOR IS RESPONSIBLE FOR THEIR OWN WORK AND SHALL NOT RELY ON THE SPECIAL INSPECTOR TO CATCH ALL CONSTRUCTION DISCREPANCIES.

ABBREVIATIONS

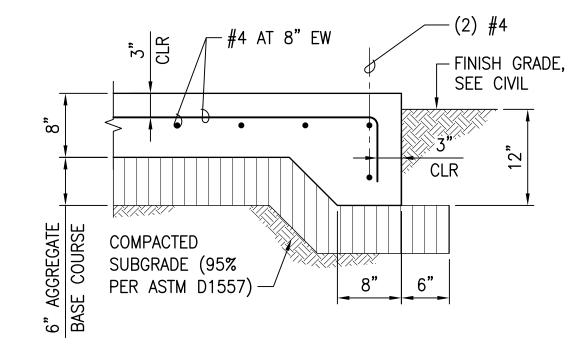








TYP WATERPROOFING (WP) **FLASHING COMPOUND DETAIL**



TYP SLAB-ON-GRADE EDGE DETAIL (2) SCALE: 1'' = 1'-0''

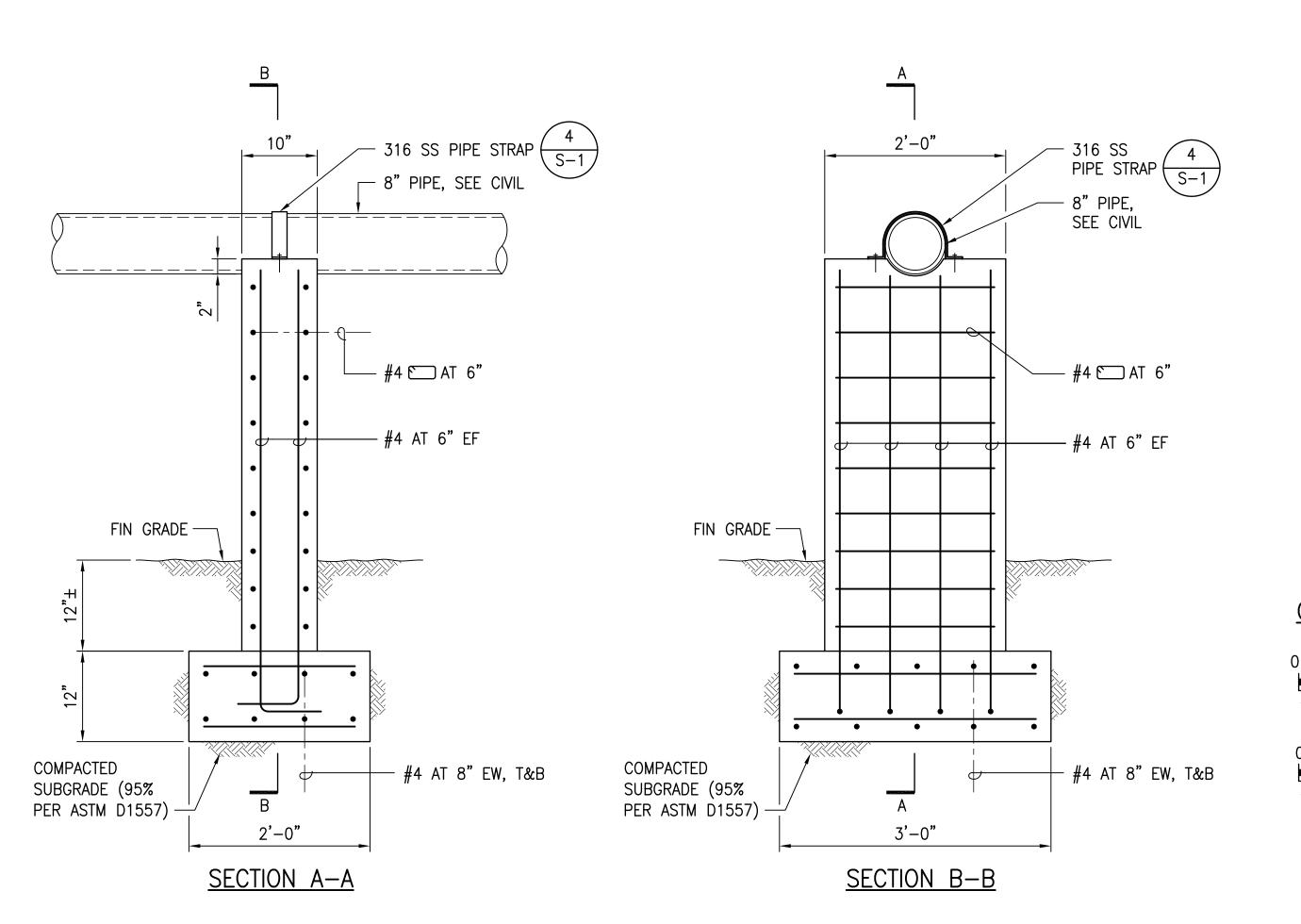
- 8" PIPE

- PIPE STRAP

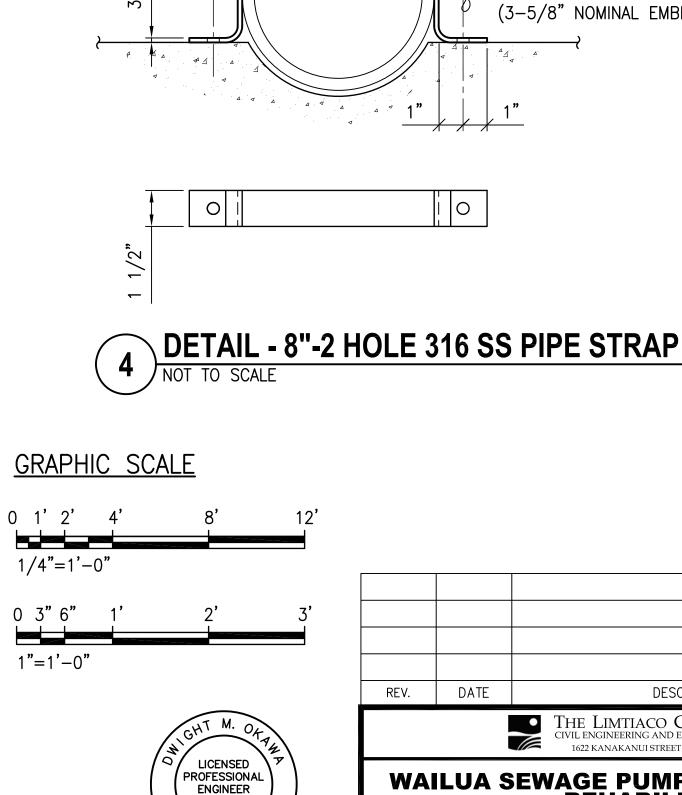
-HILTI KWIK BOLT TZ 1/2"

DIA SS EXPANSION ANCHOR

(3-5/8" NOMINAL EMBED)

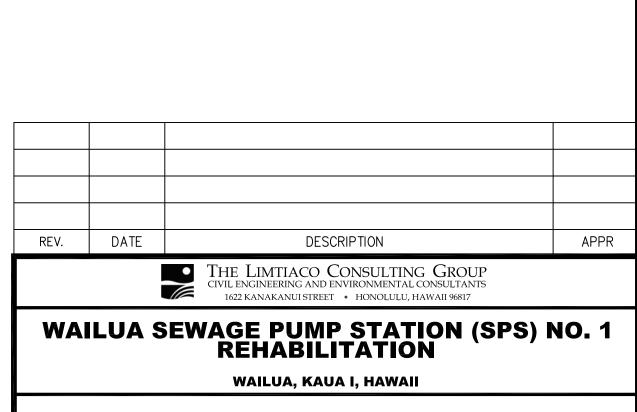


CONC PIPE SUPPORT DETAIL



NO. 4545-S

PROJECT WILL BE UNDER MY OBSERVATION.



SCALE: AS SHOWN

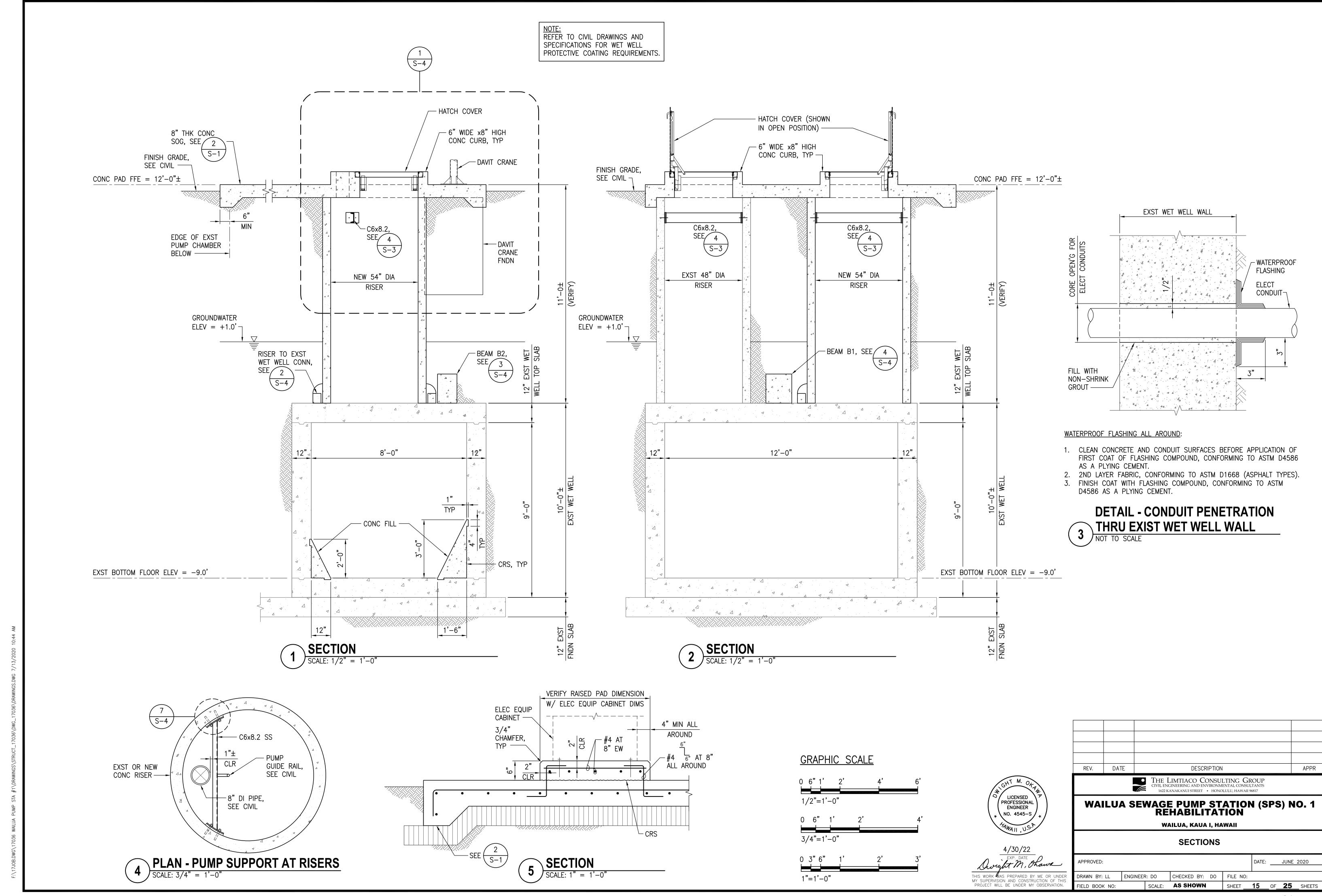
STRUCTURAL NOTES, KEYPLAN, TYPICAL DETAILS 4/30/22 Dwight M, Thawa THIS WORK WAS PREPARED BY ME OR UNDER DRAWN BY: LL ENGINEER: DO CHECKED BY: DO FILE NO:

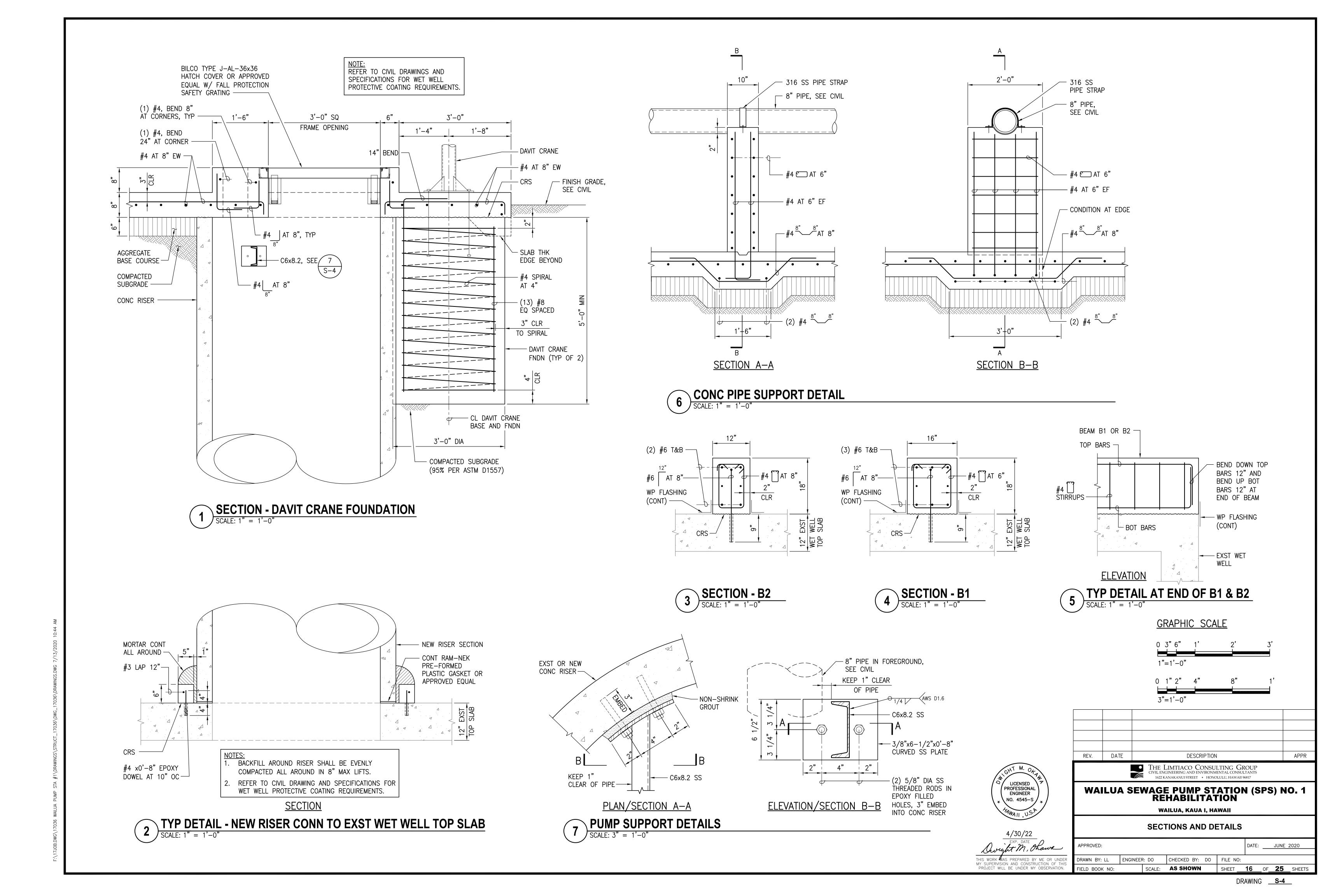
FIELD BOOK NO:

DATE: JUNE 2020

F:\17JOB.DWG\17036 WAILUA PUMP STA #1\DRAWINGS\STRUCT_17036\DWG_17036\DRAWI

DRAWING <u>S-2</u>





GENERAL NOTES:

- PLANS DO NOT INDICATE COMPLETE EXISTING ELECTRICAL CONDITIONS. CONTRACTOR SHALL VISIT JOBSITE TO BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AND EXTENT OF DEMOLITION AND NEW WORK PRIOR TO THE START OF CONSTRUCTION.
- 2. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR SHALL VISIT JOBSITE AND REPORT ANY DISCREPANCIES AND/OR DIFFERENCE IN DRAWINGS, WITH RESPECT TO EXISTING CONDITIONS, TO THE OFFICER—IN—CHARGE.
- CONTRACTOR SHALL RESOLVE ALL DISCREPANCIES AND QUESTIONS PRIOR TO THE START OF WORK. NO EXTRA PAYMENT SHALL BE ALLOWED ON ACCOUNT OF WORK MADE NECESSARY BY CONTRACTOR'S FAILURE TO VISIT THE SITE AND/OR FAILURE TO RESOLVE DISCREPANCIES AND QUESTIONS.
- BEFORE ANY ELECTRICAL WIRING IS CUT, CONTRACTOR SHALL VERIFY USAGE OF WIRING TO ENSURE THAT REQUIRED SERVICES ARE NOT DISCONTINUED.
- REMOVE ALL EXISTING EXPOSED CONDUIT AND WIRES NOT TO REMAIN IN SERVICE; CONCEALED RACEWAYS NO LONGER REQUIRED SHALL BE CUT, CAPPED AND ABANDONED IN PLACE WITH ALL WIRES REMOVED.
- 7. PROVIDE METAL SEALS FOR ALL ABANDONED RACEWAY OPENINGS IN BOXES, CABINETS, AND EQUIPMENT ENCLOSURES; SEALS SHALL RETAIN NEMA RATING OF REMAINING BOXES, CABINETS, AND EQUIPMENT ENCLOSURES.
- RETURN ALL SALVAGEABLE APPARATUS, AS DETERMINED BY THE COUNTY OR ITS REPRESENTATIVES, TO A SITE DESIGNATED BY THE COUNTY OR ITS REPRESENTATIVES, AT NO ADDITIONAL COST TO THE COUNTY. DISPOSE OF ALL UNWANTED MATERIALS.
- 9. PRIOR TO PENETRATING OR DISTURBING ANY SURFACES IDENTIFIED AS CONTAINING HAZARDOUS MATERIALS, HAVE SURFACE/MATERIAL ABATED OR TREATED SO AS NOT TO CONTAMINATE SPACE OR AREA. REFER TO HAZARDOUS MATERIAL HANDLING REQUIREMENTS.

GENERAL CONSTRUCTION NOTES:

- . PROVIDE POLYOLEFIN 200LB TEST PULLCORD IN ALL EMPTY CONDUITS, UNLESS OTHERWISE NOTED.
- ALL ELECTRICAL EQUIPMENT ENCLOSURES AND EQUIPMENT MOUNTING HARDWARE AND FASTENERS FOR OUTDOOR INSTALLATION SHALL BE TYPE 316 STAINLESS STEEL, UNLESS OTHERWISE NOTED.

	ELECTRICA	AL SYM	IBOLS
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
(A-2/32)	LIGHT FIXTURE DESIGNATOR, INDICATES TYPE "A" WITH	mm	FLEXIBLE CONDUIT, LIQUIDTIGHT
(A-2/32)	2-32 WATT LAMPS		CONDUIT OR DUCTLINE BELOW REF. FL. OR GROUND
\$ a	LT. SW., 1P, CONTROLLING OUTLET(S) "a", MTD. +48"		EXPOSED CONDUIT
			EXISTING DUCTLINE
		_	SAWCUT EXISTING AC PAVEMENT, AND CURB AND GUTTER TO INSTALL,
•	DUPLEX RECEPTACLE, WITH GROUND FAULT CIRCUIT INTERRUPTER, NEMA 5-20R, 120V, MTD. +18" OR AS NOTED		DUCTS, AND PATCH TO MATCH EXISTING, SEE RESTORATION DETAILS ON SHEET E-2
-	JUNCTION BOX MTD. ON CHANNEL SUPPORT, SEE DETAIL 1/E-7		
		1::::	ELECTRIC/SIGNAL DUCTLINE WITH DESIGNATORS; ITEMS IN CIRCLE INDICATES DUCT SECTION TYPE, WITH DUCT
M/H)	MOTOR & HEATER CONNECTION		COMPLEMENTS NOTED BELOW (TYPE "A" DUCT INDICATED
(E)	EQUIPMENT CONNECTION		WITH 1-4"E DUCT, AND TYPE "S" DUCT WITH
] L (A)(S)	1-1"C DUCT; E=ELECTRIC, T=TELEPHONE,
FS	FLOAT SWITCH CONNECTION	1-4E 1-1C	C=CONTROLS, I=INSTRUMENTATION); SEE SHEET E-2 FOR
FT	FLOW TRANSMITTER CONNECTION		DUCT SECTION DETAILS
PT	PRESSURE TRANSMITTER CONNECTION		EXISTING PULLBOX OR HANDHOLE, SEE PLANS FOR DESIGNATION
(I)	LEVEL TRANSMITTER CONNECTION		2' X 4' ELECTRIC PULLBOX SIMILAR TO KIUC STANDARD PULLBOX REQUIREMENTS
	DISCONNECT SWITCH, HP RATED		
		NOTE:	
			I GROUND CONDUCTOR IN ALL NEW BRANCH AND FEEDER CIRCUITS
			T SWITCHING LEGS, SIZED PER NEC TABLE 250.122. ALL CONDUCTORS
SPD	DENOTES "SURGE PROTECTIVE DEVICE"	#12 AWG MINIM	
WP	DENOTES "WEATHERPROOF"		
SS	DENOTES "TYPE 316 STAINLESS STEEL"		

COUNTY OF KAUAI

CHAPTER 12, KAUA'I COUNTY BUILDING CODE

KAUAI COUNTY CODE 1987, AS AMENDED

ARTICLE 6-ENERGY CONSERVATION CODE

To the best of my knowledge, this project's design substantially conforms to:

Section 12-6.3 Adoption of the International Energy Conservation Code (IECC)

Section 12-6.4 Local Amendments to the IECC

For electrical and lighting systems (Section C405 and C408).

COMPLIANCE METHOD

2015 IECC as amended. Mandatory & Prescriptive
2015 iecc as amended. Mandatory & Total Building Performance
ASHRAE Standard 90.1—2013. Mandatory & Prescriptive
ASHRAE Standard 90.1—2013. Mandatory & Energy Cost Budget

Interior Lighting
Occupant sensor controls. C405.2.1
Time switch control. C405.2.2

Daylight responsive controls. C405.2.3 Daylight zones on plans. C405.2.3.2 & C405.2.3.3 Daylight zones on plans. C405.2.4 Daylighting fixture schedule Input power for interior lighting fixtures. C405.4.1 Daylighting fixture locations Daylighting control functional performance testing requirement. C408.3 Daylighting controls. C405.2.5

Exterior lighting

Exterior lighting controls, C405.2.5

Exterior lighting fixture schedule

Input power for exterior lighting fixtures

Exterior lighting fixture locations

Electrical

Electrical transformer efficiency. C405.7

Tenant submetering. C405.10

FUNCTIONAL TESTING

C408.3.1 Functional testing. Prior to passing final inspection, the registered design professional shall provide evidence that the lighting control systems have been tested to ensure that control hardware and software are calibrated, adjusted, programmed and in proper working condition in accordance with the construction documents and manufacturer's instructions. Functional testing shall be in accordance with Sections C408.3.1.1 and C408.3.1.2 for the applicable control type.

NOTES

SIGNATURE:

DATE: 06/30/2020

NAME: BILLY J. ORNELLAS

TITLE: ELECTRICAL ENGINEER

LICENSE NO.: 11658-E

(CHECK ONE)

BUILDING ENERGY CONSERVATION CODE

exterior lighting power allowance 118 installed 92 interior lighting power allowance N/A installed N/A calculations: separate X on drawings

LICENSED PROFESSIONAL ENGINEER No. 11658-E

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

REV. DATE DESCRIPTION APPR

Ronald N.S. Ho & Associates, Inc.

Electrical Engineers
2153 North King Street, Suite 201 Honolulu, Hawaii 96819
Phone: (808)941-0577 Fax: (808)945-2646

WAILUA SEWAGE PUMP STATION (SPS) NO. 1
REHABILITATION

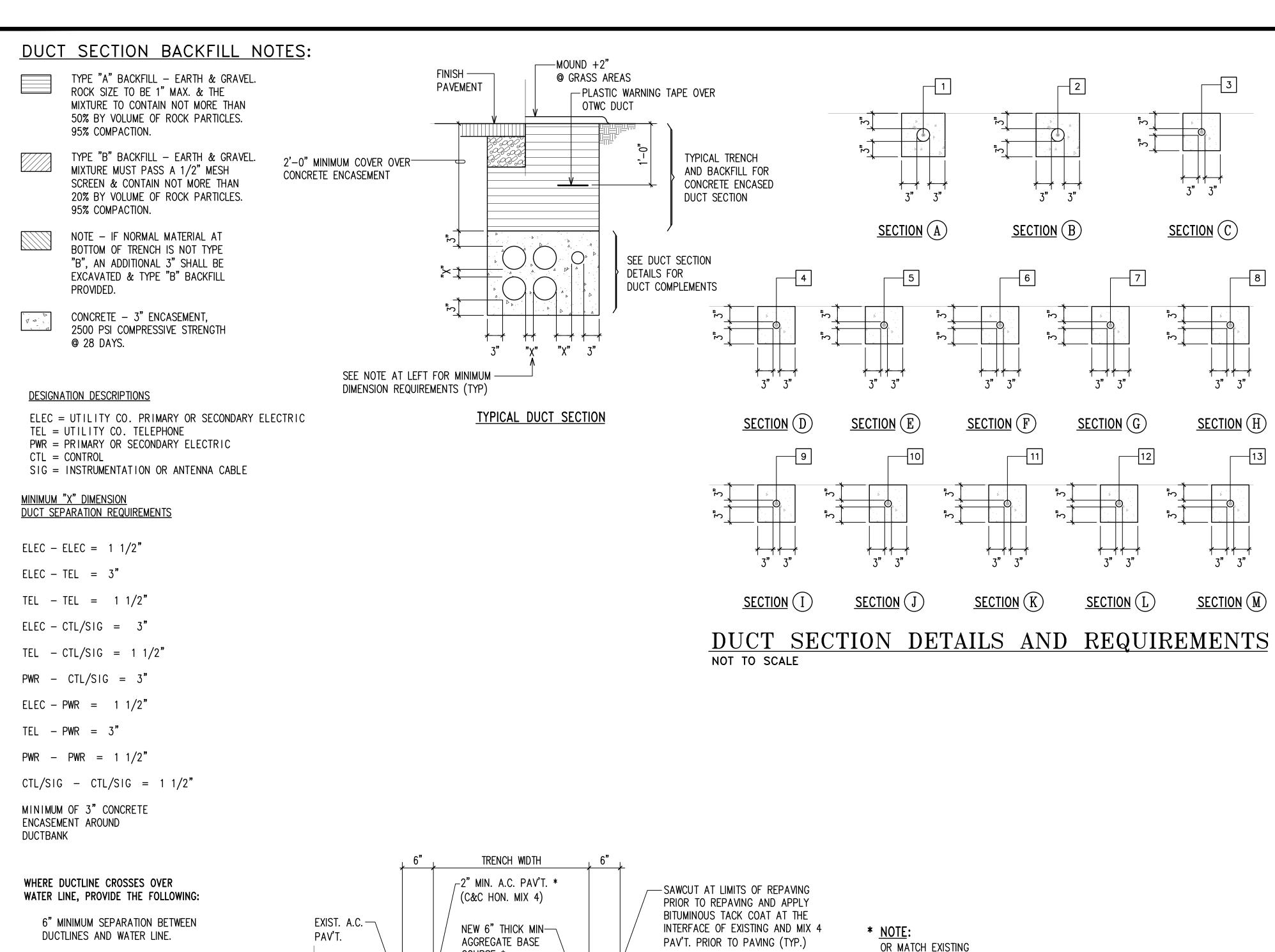
GENERAL NOTES AND ELECTRICAL SYMBOLS

APPROVED: DATE: JUNE 2020

DRAWN BY: YS ENGINEER: YS CHECKED BY: BJO FILE NO:

FIELD BOOK NO: SCALE: AS SHOWN SHEET 17 OF 25 SHEETS

LAST_EDIT



NO.	DUCT SIZE	WIRE SIZE	DESTINATION OR USE
1	2"	SEE ONE-LINE DIAGRAM	POWER FROM MCC NO. 1 TO ELECTRICAL PULLBOX
2	2"	SEE ONE-LINE DIAGRAM	POWER FROM ELECTRICAL PULLBOX TO WLU-R1 (EEC
3	1"	SEE ONE-LINE DIAGRAM	POWER FROM ELECTRICAL PULLBOX TO AREA LIGHT
4	1"	SEE ONE-LINE DIAGRAM	POWER FROM WLU-R1 (EEC) TO PUMP NO. 1
5	1"	2/C#14 TWISTED, SHIELDED CABLE W/ GND	LEVEL TRANSMITTER TO WLU-R1 (EEC)
6	1"	SEE ONE-LINE DIAGRAM	POWER FROM WLU-R1 (EEC) TO PUMP NO. 2
7	1"	6#12 CONTROLS	HIGH LEVEL FLOAT SWITCH CONTROLS FROM WLU-R1 (EEC) TO PUMP NO. 2
8	1"	14#14 CONTROLS	CONTROLS TO WLU-R1 (RTU)
9	1"	2#12, 1#12 GND	POWER TO WLU-R1 (RTU)
10	1"	2/C#14 TWISTED, SHIELDED CABLE W/ GND	INSTRUMENTATION TO WLU-R1 (RTU)
11	1"	2-CAT6 CABLE	COMMUNICATIONS FROM WLU-R1 (RTU) TO EXISTING SCADA CABINET
12	1"	2/C#14 TWISTED, SHIELDED CABLE W/ GND	INSTRUMENTATION TO FLOW TRANSMITTER
13	1"	4#12, 1#12 GND	POWER TO RECEPTACLE AND LIGHT SWITCH ON AREA LIGHT POLE

- 1. ALL CONCRETE ENCASED DUCTS SHALL BE SCHEDULE 40 PVC.
- 2. ALL DIRECT BURIED DUCTS SHALL BE SCHEDULE 80 PVC. 3. PC INDICATES PROVIDE PULLCORD.

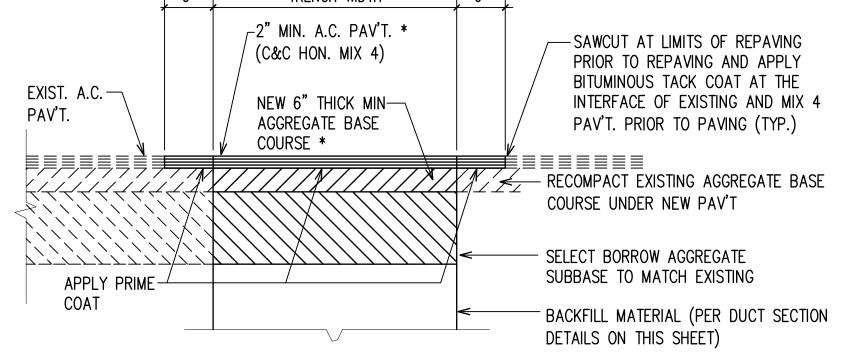
SECTION C

8

SECTION (H)

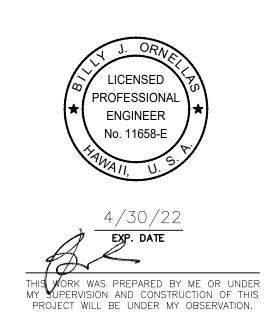
SECTION M

13



OR MATCH EXISTING PAVEMENT THICKNESS, WHICHEVER IS GREATER, INCLUDING A.C. AND/OR PORTLAND CONCRETÉ PAVEMENT, BASE COURSE, AND SELECT BORROW.

1 TRENCH REPAVEMENT DETAIL E-2 NOT TO SCALE



REV.	DATE		DESCR	IPTION			APPR
		Electrica 2153 North	d N.S. Ho & Il Engineers In King Street, Suite 2 08)941-0577 Fax: (80	01 Hor	nolulu, Hawaii 9		
WAI	LUA S	EWAGE RE	PUMP HABILIT	ST.	ATION	N (SPS)	NO. 1
		WA	ILUA, KAUA'	I, HA	WAIʻI		
DUCT S	ECTION DET	AILS AND RI	EQUIREMENTS				
APPROVED:						DATE: JUN	NE 2020
DRAWN BY:	YS ENGIN	NEER: YS	CHECKED BY:	BJO	FILE NO:		
FIELD BOOK	NO:	SCALE:	AS SHOWN		SHEET	<u>18</u> of 2	5 SHEETS

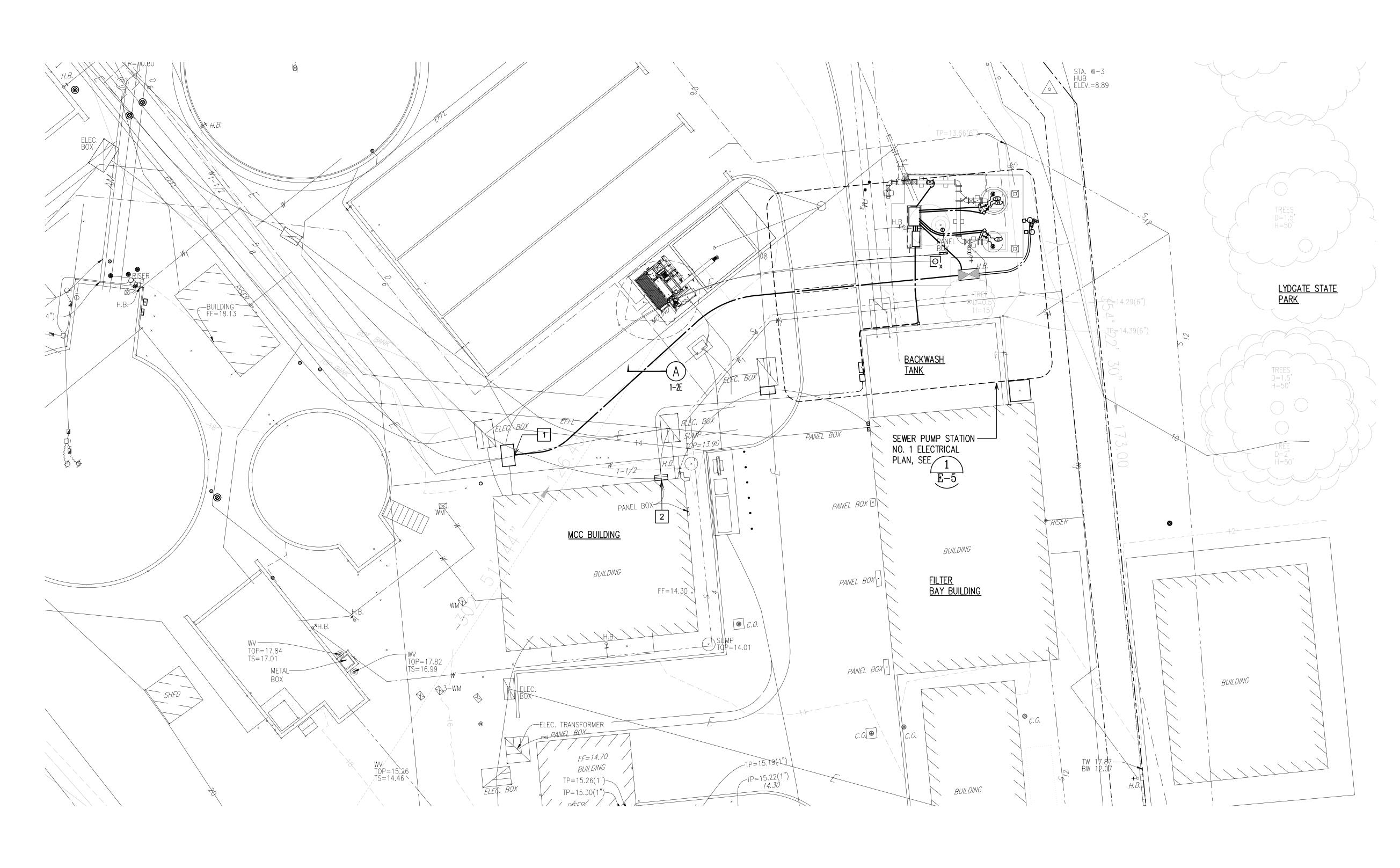
PROVIDE CONCRETE JACKET

PROVIDE ONLY TYPE "B"

BACKFILL AROUND WATER

AROUND DUCTLINES.

LINE.

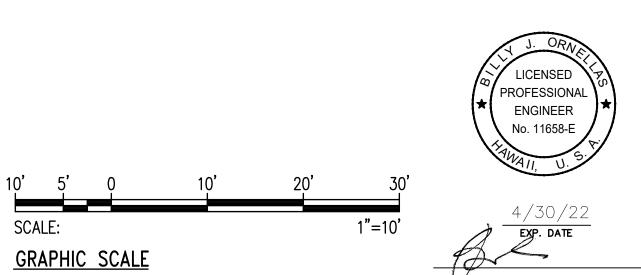




NOTES

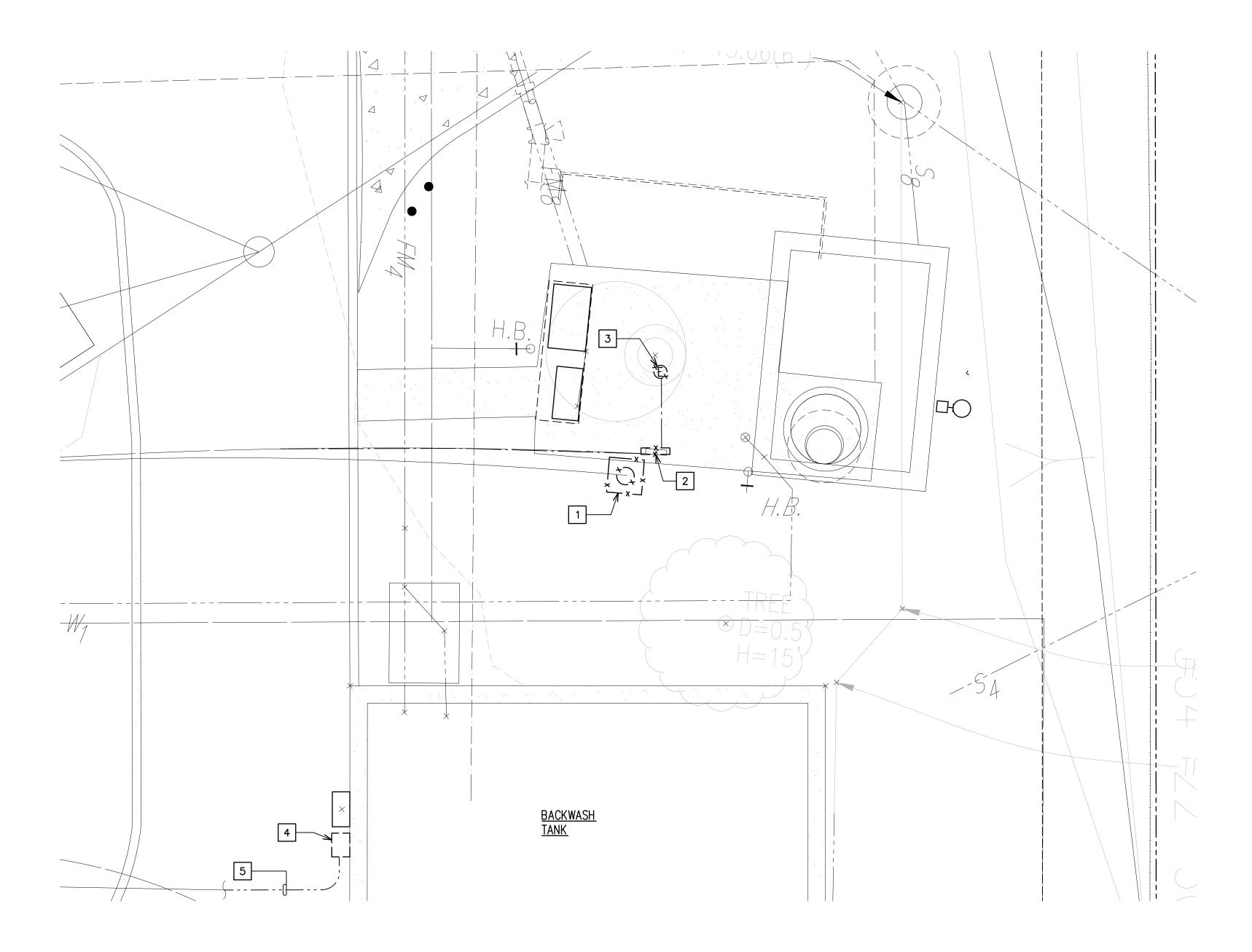
1 BREAK AND PATCH EXISTING ELECTRICAL PULLBOX AND EXTEND DUCTLINE AS INDICATED

2 EXISTING ETHERNET I/O CABINET.



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REV.	DATE	<u> </u>		DESCR	IPTION					APPR
		P	Electrica 2153 Nort	Id N.S. Ho & al Engineers th King Street, Suite 2 08)941-0577 Fax: (80	201 Hoi	nolulu, Hawaii 9			·	
WAI	ILUA	SEV	NAGE RE	E PUMP HABILI	ST.	ATION	V (S	PS) N	0. 1
			WA	AILUA, KAUA	i, HA	WAIʻI				
ELECTRI	CAL SI	TE PLAN								
APPROVED:							DATE:		JUNE	2020
DRAWN BY:	YS	ENGINEER	: YS	CHECKED BY:	BJO	FILE NO:	•			
FIELD BOOK	NO:		SCALE:	AS SHOWN		SHEET	19	OF_	25	SHEETS
						DR	ΔWINI	<u> </u>	<u> </u>	



1 SEWAGE PUMP STATION NO. 1 DEMO PLAN SCALE: 1/4"=1'-0"

NOTES:

1 EXISTING AREA LIGHT POLE TO BE DEMOLISHED.

2 EXISTING ENCLOSED CIRCUIT BREAKER TO BE DEMOLISHED.

3 EXISTING ELECTRICAL CONNECTION TO SEWER PUMP STATION NO. 1 TO BE REMOVED.

4 EXISTING JUNCTION BOX FOR NEW CONTROLS.

5 EXISTING SPARE DUCTLINE TO ETHERNET CABINET.

6. REMOVE ALL EQUIPMENT AND CONDUCTORS AS INDICATED. EMPTY DUCTLINES SHALL BE CAPPED AND ABANDONED IN PLACE.

Description of the second of t

GRAPHIC SCALE

2'

4/30/22

EXP. DATE

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

REV. DATE DESCRIPTION APPR

Ronald N.S. Ho & Associates, Inc.
Electrical Engineers
2153 North King Street, 8089)945-2646

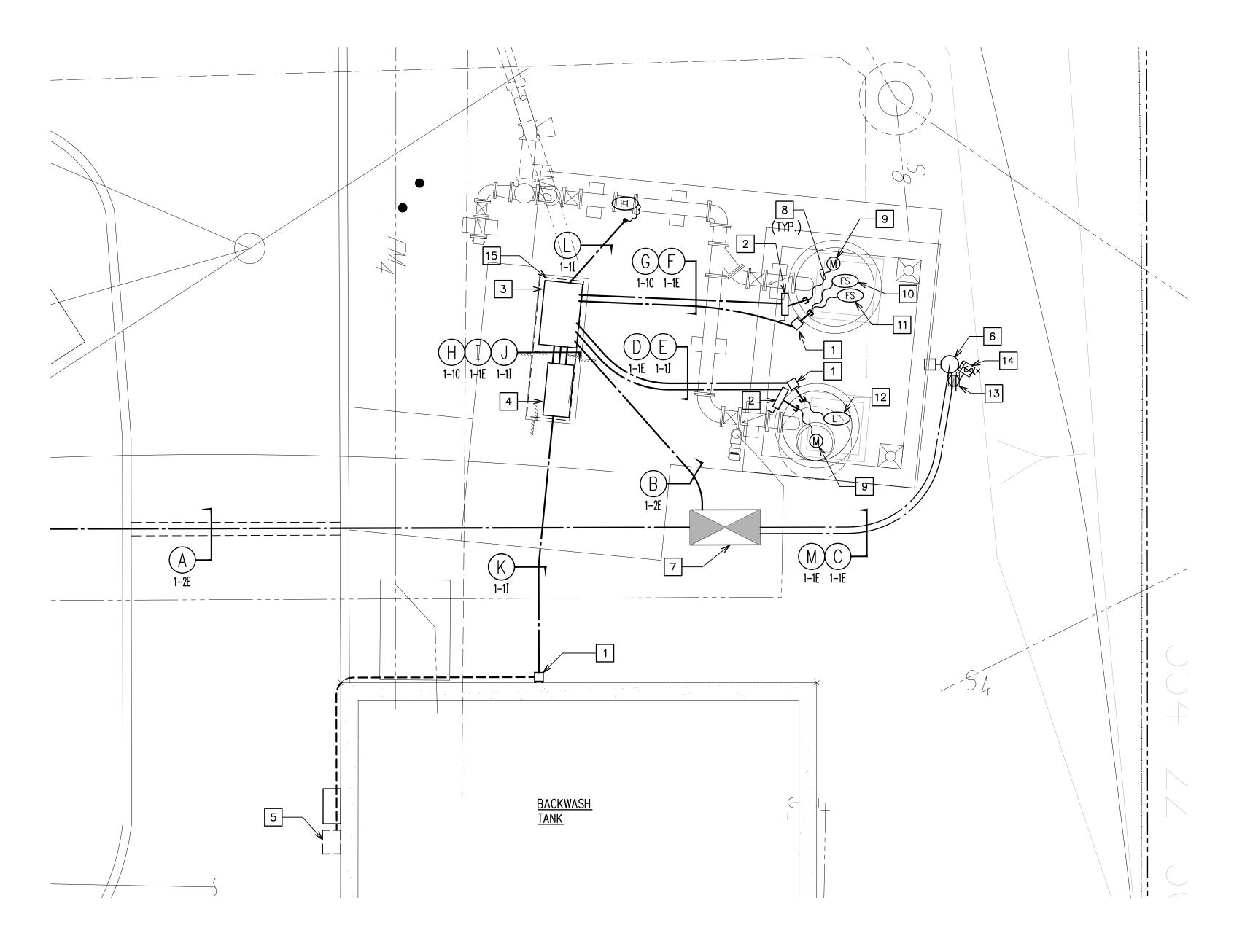
WAILUA SEWAGE PUMP STATION (SPS) NO. 1
REHABILITATION

WAILUA, KAUA'I, HAWAI'I

SEWAGE PUMP STATION NO. 1 DEMO PLAN

APPROVED:

DRAWN BY: YS ENGINEER: YS CHECKED BY: BJO FILE NO:
FIELD BOOK NO: SCALE: AS SHOWN SHEET 20 OF 25 SHEETS



1 SEWAGE PUMP STATION NO. 1 ELECTRICAL PLAN SCALE: 1/4"=1'-0"

NOTES:

1 NEW 6'SQ X 6'D NEMA 4XSS CHANNEL MOUNTED JUNCTION BOX. SEE 1/E-7 FOR DETAILS.

2 60A DISCONNECT SWITCH NEMA 4XSS CHANNEL MOUNTED. SEE 2/E-7 FOR DETAILS.

3 FRONT OF WLU-R1 (EEC); OWNER FURNISHED, CONTRACTOR INSTALLED.

4 FRONT OF WLU-R1 (RTU); OWNER FURNISHED, CONTRACTOR INSTALLED.

5 EXTEND CONDUIT TO EXISTING JUNCTION AND DUCTLINE BOX FOR RTU CONTROLS.

6 AREA LIGHT POLE. SEE POLE DETAIL 1/E-8.

7 NEW 2'X4' ELECTRICAL PULLBOX

8 SUBMERSIBLE CABLE OF SUFFICIENT LENGTH TO DISCONNECT WITHOUT ANY SPLICES; PROVIDED BY PUMP MANUFACTURER.

9 MOTOR CONNECTION.

10 WET WELL HIGH LEVEL FLOAT SWITCH CONNECTION. OWNER FURNISHED, CONTRACTOR INSTALLED. SEE DETAIL ON SHEET 1/E-9 FOR MOUNTING DETAILS.

WET WELL HIGH HIGH LEVEL FLOAT SWITCH CONNECTION. OWNER FURNISHED, CONTRACTOR INSTALLED. SEE DETAIL ON SHEET 1/E-9 FOR MOUNTING DETAILS.

WET WELL LEVEL TRANSMITTER CONNECTION. OWNER FURNISHED, CONTRACTOR INSTALLED. SEE DETAIL ON SHEET 1/E-9 FOR MOUNTING DETAILS.

13 CHANNEL MOUNTED 316 STAINLESS STEEL WEATHERPROOF RECEPTACLE, SEE DETAIL ON SHEET 3/E-7.

14 CHANNEL MOUNTED 316 STAINLESS STEEL WEATHERPROOF LIGHT SWITCH, SEE DETAIL ON SHEET 3/E-7.

15 NEW CONCRETE PAD. SEE DETAIL 2/E-8 AND STRUCTURAL DRAWINGS.

16. PROVIDE CONDUIT SEAL FITTING WITH APPROVED SEALING COMPOUNDS WHEN ENTERING WET WELL CLASS I DIVISION I PER NEC 501.15.

LICENSED PROFESSIONAL ENGINEER No. 11658-E

4' 2' 0 4' 8' 12'

SCALE:

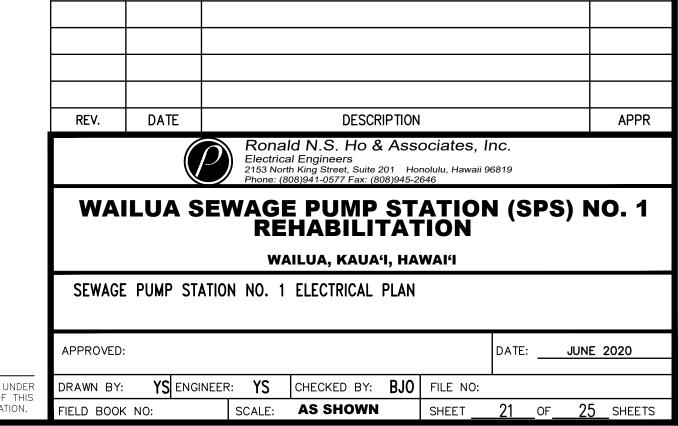
1/4"=1'-0"

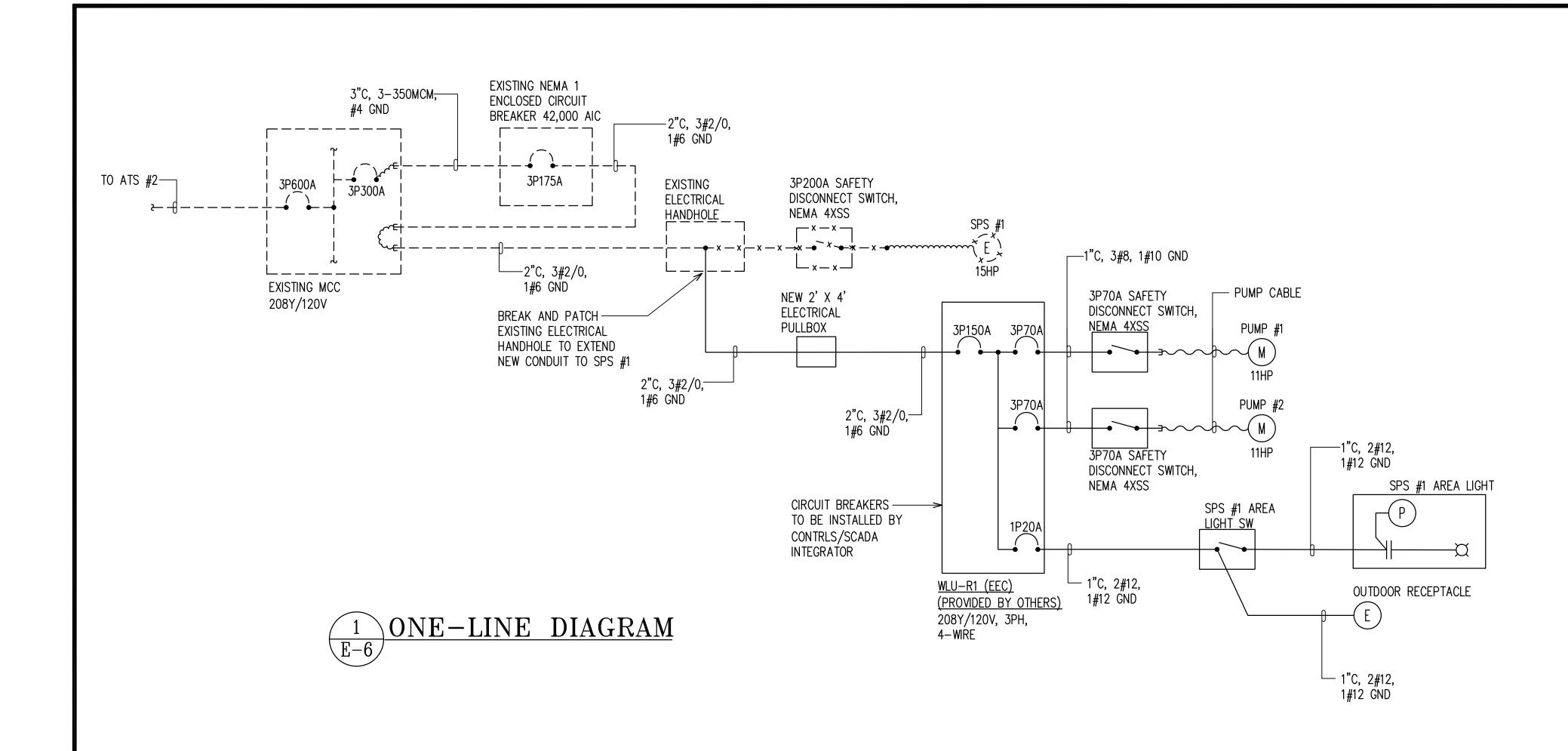
GRAPHIC SCALE

THIS WORK WAS PREPARED BY ME

MY LIDER PURSION AND CONSTRUCTION

MY LIDER PURSION AND CONSTRUCTION

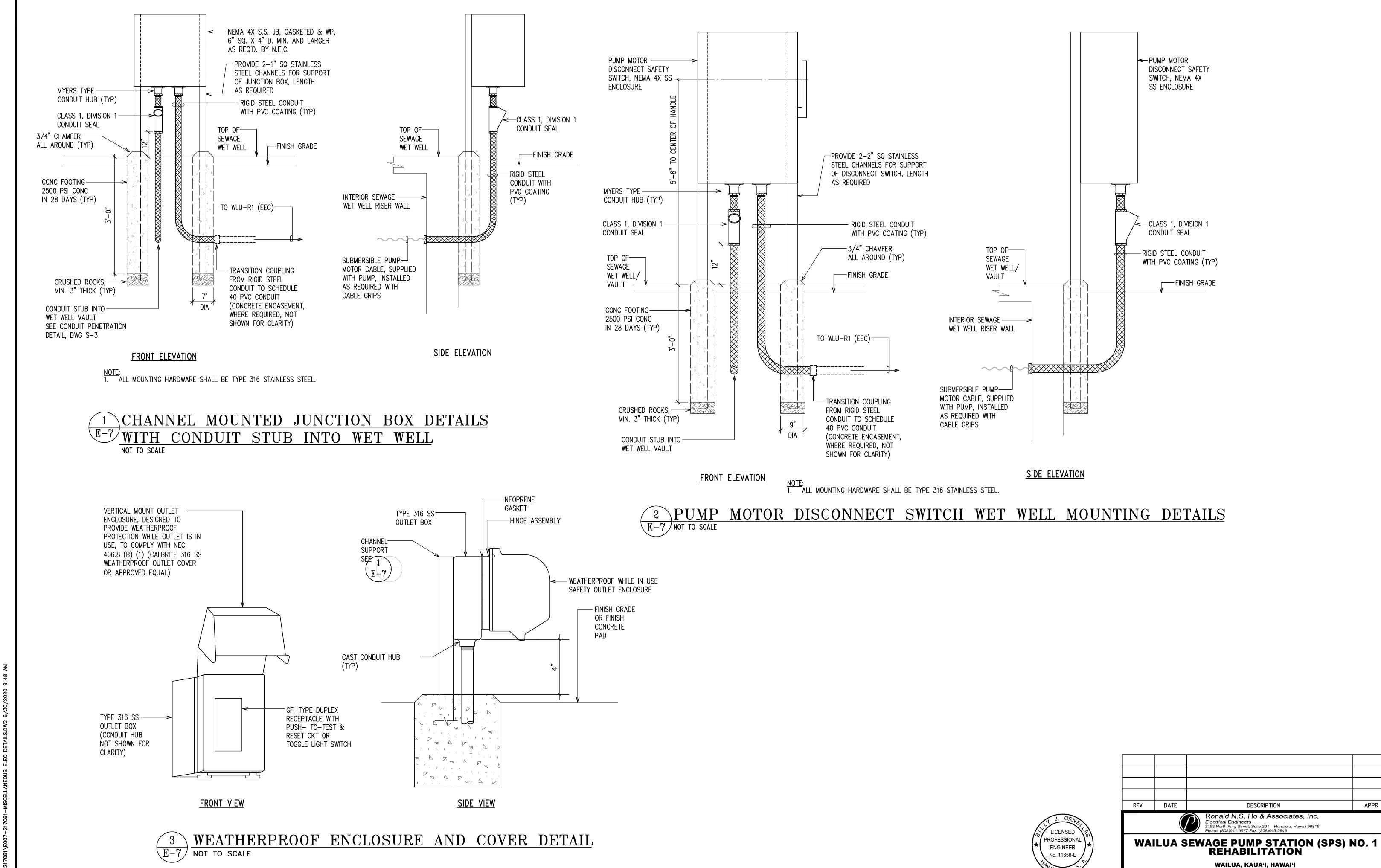




		LIGHT FIXTURE SCHEDUL	E
TYPE	LAMP/ WATTS	DESCRIPTION	MANUFACTURER OR APPROVED EQUAL
A	92W 80 LED 3000°K	DIE-CAST ALUMINUM HOUSING, TYPE III, DARK BRONZE POWDER COAT FINISH, POLE MOUNTED, WITH INTEGRAL PHOTO-CELL, DIMMABLE, UL AND CSA LISTED, CLEAR ANODIZED UNDERCOAT, FULL CUTOFF NO UPLIGHT, 120V	KIM ENTABLATURE LARGE LED ET, OR PRE-APPROVED EQUAL



REV. DATE DESCRIPTION APPR Ronald N.S. Ho & Associates, Inc. Electrical Engineers
2153 North King Street, Suite 201 Honolulu, Hawaii 96819
Phone: (808)941-0577 Fax: (808)945-2646 WAILUA SEWAGE PUMP STATION (SPS) NO. 1 REHABILITATION WAILUA, KAUA'I, HAWAI'I ONE-LINE DIAGRAM, PANEL SCHEDULE, AND LIGHT FIXTURE SCHEDULE DATE: JUNE 2020 APPROVED: DRAWN BY: YS ENGINEER: YS CHECKED BY: BJO FILE NO: THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. SHEET 22 OF 25 SHEETS SCALE: AS SHOWN FIELD BOOK NO:



SHEET <u>23</u> OF <u>25</u> SHEETS

JUNE 2020

MISCELLANEOUS ELECTRICAL DETAILS I

DRAWN BY: YS ENGINEER: YS CHECKED BY: BJO FILE NO:

SCALE: AS SHOWN

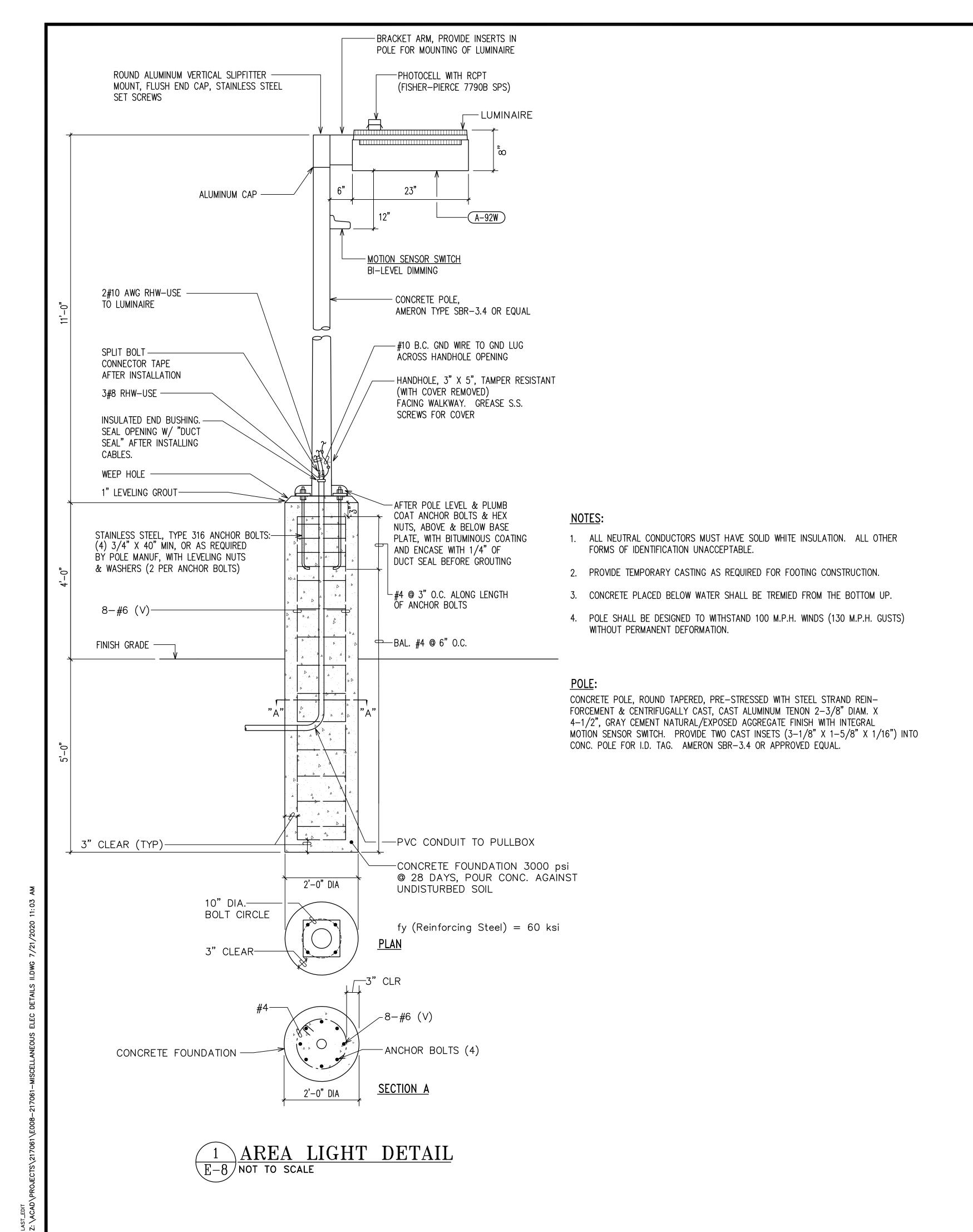
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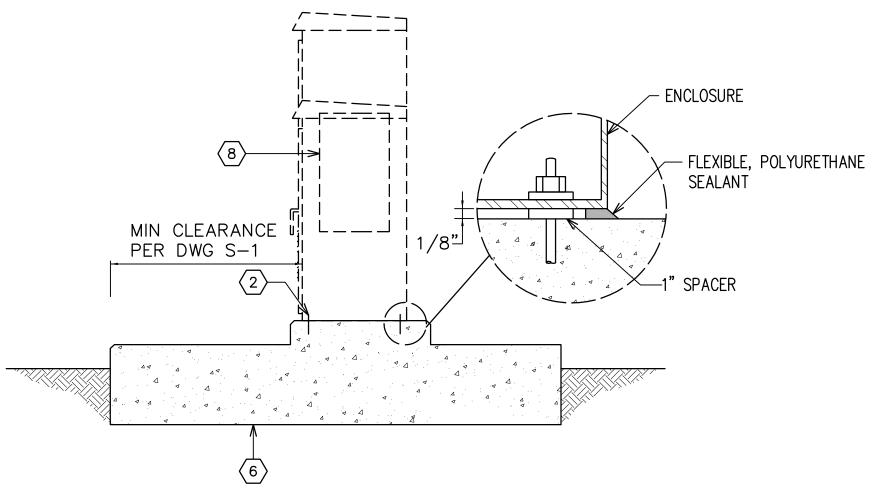
FIELD BOOK NO:

EXP. DATE

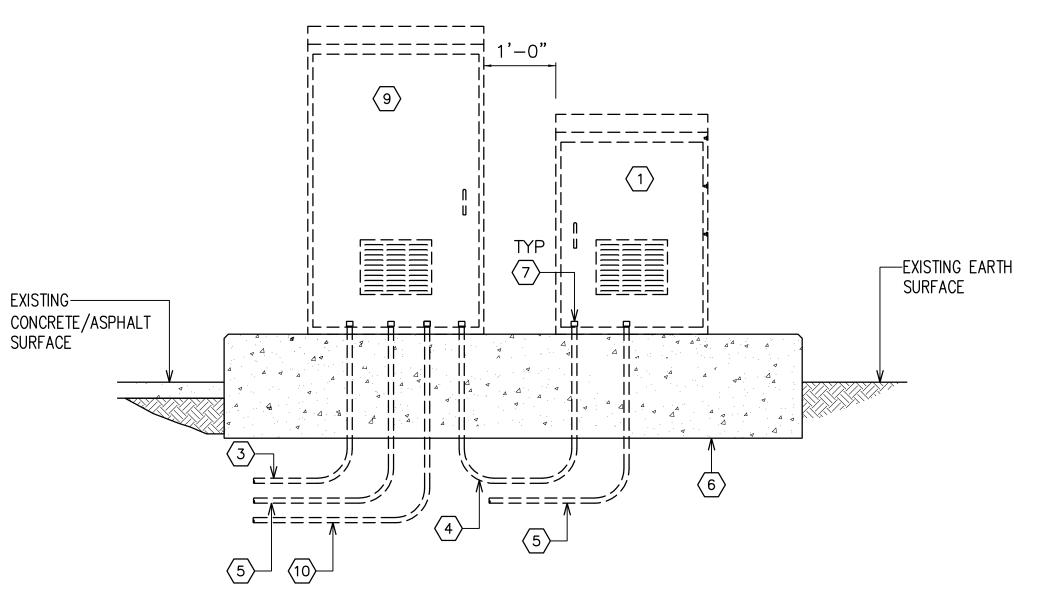
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APPR





SIDE VIEW

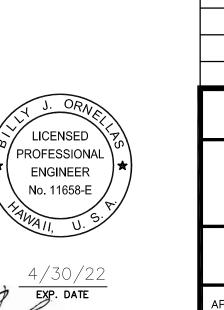


FRONT VIEW

<u>NOTES</u>

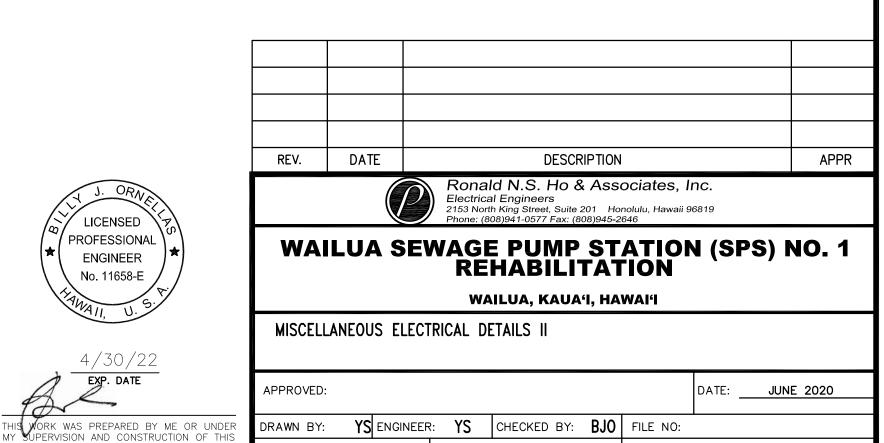
- 1. OWNER FURNISHED REMOTE TERMINAL UNIT (RTU)
- 2. SECURE ENCLOSURE TO CONCRETE WITH (4) 1/2" DIAMETER, STUD/WEDGE-TYPE EXPANSION ANCHORS, MINIMUM 3-1/2" EMBEDMENT
- 3. INCOMING ELECTRICAL SERVICE.
- 4. TYPICAL CONDUIT BETWEEN EEC AND RTU.
- 5. STUB OUT (STUB UP) AND CAP TWO 1"C IN DIRECTION AND FOR DISTANCE SHOWN ON PLANS. RTU PANEL MAY REQUIRE MORE THAN ONE SET OF STUB-OUTS, AS SHOWN ON PLANS.
- 6. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE SLAB DESIGN AND DIMENSIONS.
- 7. CONTAIN CONDUIT STUB-UPS IN AN AREA NOT TO EXCEED 24" WITH BY 12" DEEP CENTERED UNDER RTU.
- 8. 1/8" THICK STEEL PLATE ON INSIDE OF ENCLOSURE (FACTORY WELDED TO ENCLOSURE. SIZE PLATE TO EXTEND 1" BEYOND FRAMING CHANNEL WELDED ON EXTERIOR OF ENCLOSURE.
- 9. OWNER FURNISHED ELECTRICAL EQUIPMENT CABINET (EEC).
- 10. TYPICAL CONDUIT TO WET WELL OR DRY WELL.
- 11. MAINTAIN 6" MINIMIMUM CLEARANCE BETWEEN EDGE OF CONDUIT AND EDGE OF PAD. TYPICAL OF ALL CONDUITS.





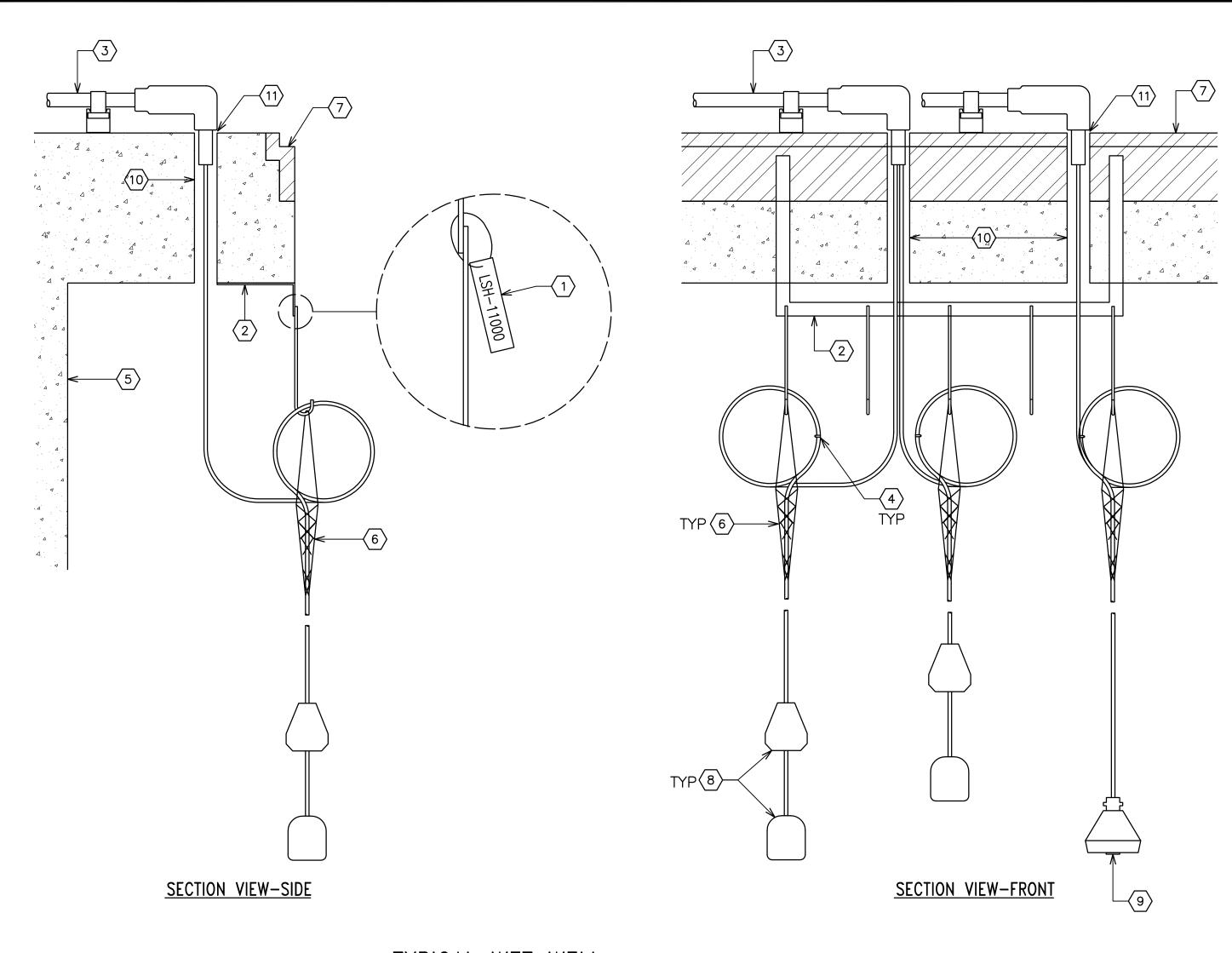
FIELD BOOK NO:

PROJECT WILL BE UNDER MY OBSERVATION



SCALE: AS SHOWN

SHEET <u>24</u> OF <u>25</u> SHEETS



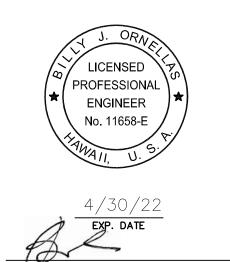
TYPICAL WET WELL

1 WET WELL LEVEL SWITCH AND LEVEL TRANSMITTER ELEMENT MOUNTING DETAIL E-9 NOT TO SCALE

NOTES:

- 1. INSTRUMENT NAMEPLATE, TYPICAL FOR EACH LEVEL SWITCH AND LEVEL TRANSMITTER ELEMENT.
- 2. 316 STAINLESS STEEL CABLE HOLDER. FASTEN TO UNDERSIDE OF WET WELL TOP SLAB.
- 3. TYPICAL CONDUIT TO TERMINAL BLOCK JUNCTION BOX.
- 4. SECURE EXCESS CABLE WITH 316 STAINLESS STEEL HOSE CLAMP.
- 5. WET WELL INTERIOR WALL.
- 6. SUPPORT GRIP, SIZED FOR APPLICABLE FACTORY CABLE. HANG GRIP ON CABLE HOLDER.
- 7. HATCH COVER FRAME.

- 8. FLOAT SWITCH WITH FLOAT SWITCH WEIGHT.
- 9. LEVEL TRANSMITTER ELEMENT.
- 10. CORE CONCRETE FOR INSTALLATION OF INSTRUMENT CABLES.
- 11. SEAL SPACE AROUND CONDUIT NIPPLE AND CONDUIT CORE.

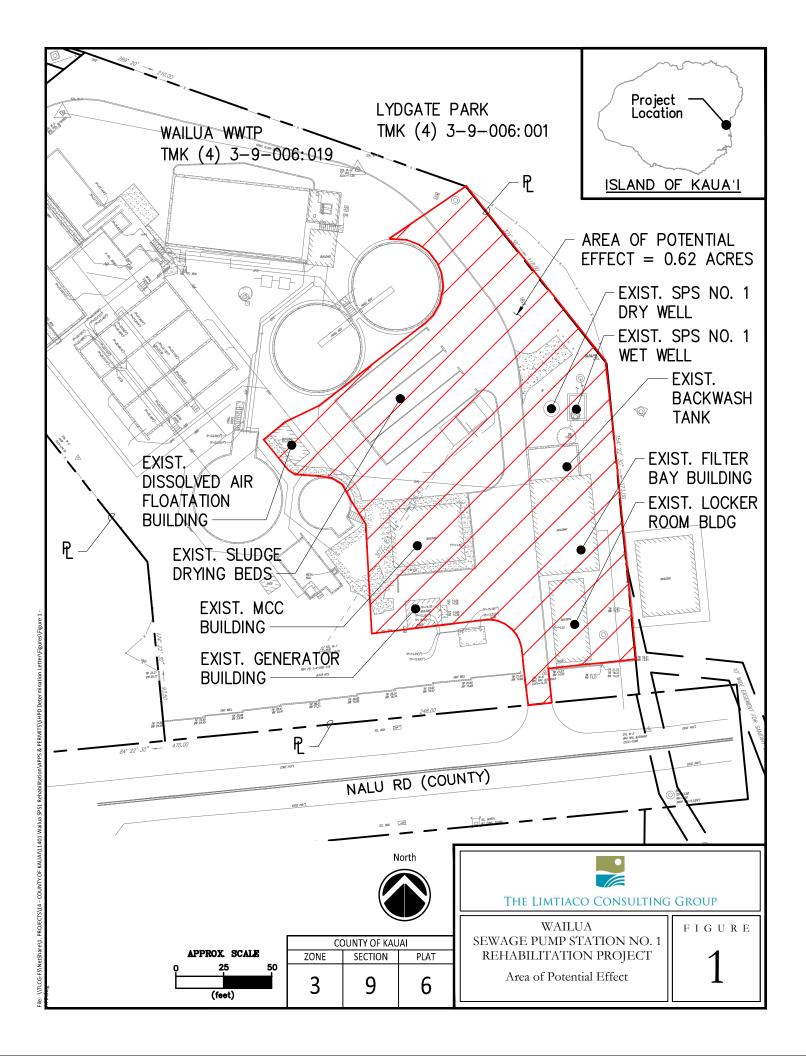


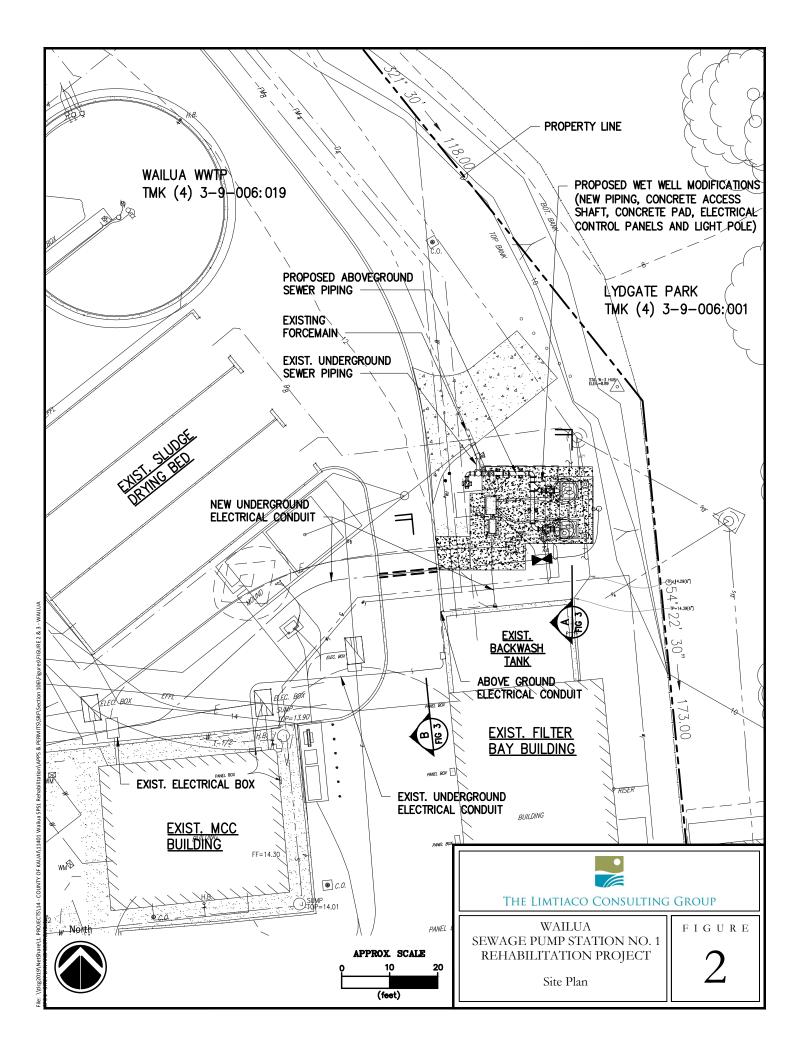
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		al Engineers rth King Street, Suite 2 808)941-0577 Fax: (80	01 Honolulu,					
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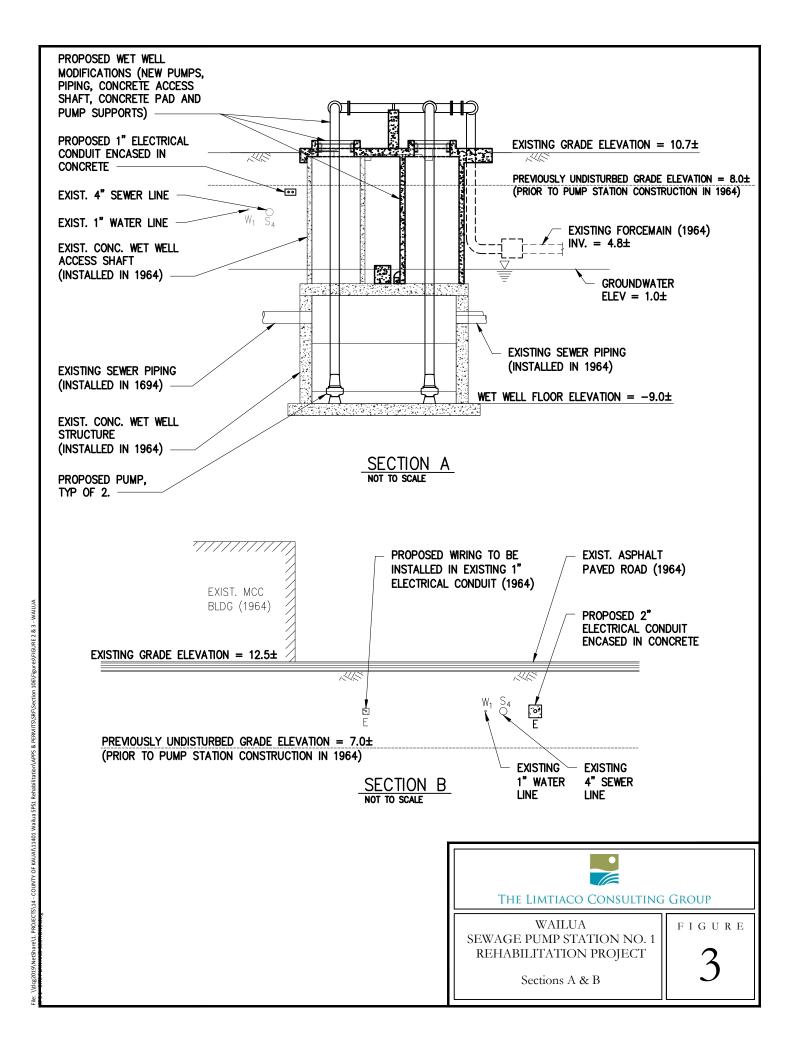
Alan S. Downer, PhD, Administrator February 3, 2022

Attachment D

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Attachment E

Table 4. Historic Properties in Section 2 Portion of Wailua Ahupua'a (see Figure 12)

Site Number 50-30-08-	Site Type/Name (if any)	Location	Size/Constraints	Reference
B005	Poliahu Japanese Cemetery	South side of Kuamoʻo Road (Poliahu Road)	Discrete Historic Cemetery, approx 118 burials, interments as late as 1979	Kikuchi and Remoaldo 1992:66-74
104	Malae Heiau	South bank of Wailua River, 200 feet <i>mauka</i> of Kūhiō Highway	Part of Wailua Complex of Heiau National Historic Landmark - defined is area 2 acres, heiau and buffer is 9.49 acres, in State Park, Yent 2000 specifies view corridor concerns	Thrum 1907:40; Bennett 1931:125; Yent 1991b, 2000
104A	Adze Workshop/flake scatter	In cane field north and northeast of Malae Heiau, extending from road to marina -	within 9.49 acre Malae Heiau and buffer parcel in State Park	Kikuchi 1987:1-9; see Yent 2000
105	Hikinaakalā Heiau and Puʻuhōnua o Hauola	Southern side of the mouth of Wailua River	Part of Wailua Complex of Heiau National Historic Landmark - defined area 2.3 acres, in State Park	Thrum 1907:40; Bennett 1931:125-126; Kikuchi 1974; Yent 1989
106	Kalaeokamanu (Kalaeamanu) Heiau, aka. Holoholokū Heiau and associated põhaku hoʻohānau	North bank of the Wailua River at the base of Pu'ukī	Part of Wailua Complex of Heiau National Historic Landmark - defined area 37,960 sq ft., in State Park	Bennett 1931:127; Damon 1934

Site Number 50-30-08-	Site Type/Name (if any)	Location	Size/Constraints	Reference
107	Poliahu Heiau	Wailua River State Park	Part of Wailua Complex of Heiau National Historic Landmark - defined area 49,140 sq ft., in State Park	Thrum 1907:40; Bennett 1931:127
217 (Soehren and Ching Site 10)	Kauhihalau agricultural site	South of <i>makai</i> portion of Wailua River, eastern quarter occupied by Wailua State Marina	Virtually no data, size unclear, further work in area indicated, in State Park	Ching 1968:16
247 (Soehren and Ching Site 33)	Kamalau agricultural site	North of Mauna Kapu on flats	Virtually no data, size unclear, further work in area indicated, in State Park	Ching 1968:16
250 (Soehren and Ching Site 11)	Hauloa agricultural site	North of <i>makai</i> portion of Wailua River	Virtually no data, size unclear, further work in area indicated, in State Park	Ching 1968:16
321 (Soehren and Ching Site 12)	<i>'Auwai</i> , earthen ditch	Just North of Confluence of North & South Forks, Wailua River (associated with sites 218 and 250) along base of valley wall in dense hau	Little data, length unclear, further work in area indicated, in State Park	Soehren 1967; Ching 1968:16; Yent 1989a:7; Carpenter and Yent 1997:35
325 (Ching Site 38)	Kamalau and Kulaina storied rocks	North of Mauna Kapu, at <i>mauka</i> end of site -247, one rock in middle of river below Poliahu Heiau	Site consists of two storied rocks; description insufficient for identification, in State Park	Ching 1968:16-18

Site Number 50-30-08-	Site Type/Name (if any)	Location	Size/Constraints	Reference
326 (Ching Site 39)	Kamalau and Kulaina storied rocks	North of Mauna Kapu, at <i>mauka</i> end of site -247, one rock in middle of river below Poliahu Heiau	Site consists of two storied rocks; description insufficient for identification, in State Park	Ching 1968:16-18
329 (Ching Site 42)	Ahuhauli, reported home and burial ground of Kumauna/ Lono Kelekoma family	North of <i>makai</i> portion of Wailua River "near the little hillock, Ahuhauli, where the one (lone) tall coconut tree stands" (1936)	Virtually no data, size unclear, further work in area indicated, in State Park	Ching 1968:14
330 (Ching Site 43)	Kaluamokila legendary cave through hill from N to S, south end just above water level sealed with a stone, land entrance opening is small	North of <i>makai</i> portion of Wailua River	Virtually no data, may only be legendary, further work in area indicated, in State Park	Ching 1968:13
331 (Ching Site 44)	Old Rice Mill	North of mouth of Wailua River, just mauka of Smith's and Doris' old boat landing	Still stood in 1953, only foundations are left, testing and marker recommended, in State Park	Ching 1968:12-13
334 (Ching Site 47)	Pōhaku'ele'ele Heiau (and several other sites reported by Dickey 1916:29)	"On the <i>makai</i> tip of a hill near the eastern end of the promontory between the two northern branches of the Wailua River" (Dickey 1916:14)	Virtually no data, some uncertainty about the location, size unclear, further work in area indicated, in State Park	Dickey 1916:29; Ching 1968:14-15

Site Number 50-30-08-	Site Type/Name (if any)	Location	Size/Constraints	Reference
335 (Ching Site 48)	Bellstone(s)	North of <i>makai</i> portion of Wailua River	Part of Wailua Complex of Heiau National Historic Landmark - defined area not available, in State Park	Ching 1968:14
337 (Ching Site 50)	Hihiakalahu "the place where the first hau trees of Kaua'i grew"	North of Mauna Kapu, south of Poliahu	A legendary <i>hau</i> tree grove, size unclear, in State Park	Ching 1968:16
340 (Ching Site 53)	Agricultural Terraces "indicated as being in rice in 1900 and 1923"	North of confluence of North and South Forks, Wailua River	Virtually no data, size unclear, further work in area indicated, in State Park	Ching 1968:18
342 (Ching Site 55)	Agricultural flat "appears as rice land on Monsarratt's map of 1900 and Wall's map of 1923"	North of <i>makai</i> portion of Wailua River	Virtually no data, size unclear, further work in area indicated, in State Park	Ching 1968:13
343 (Ching Site 56)	Kula "indicated as <i>kula</i> land on Wall's map of 1923"	South side of <i>makai</i> portion of Wailua River	Virtually no data, size unclear, further work in area indicated, in State Park	Ching 1968:16
502	Wailua Complex of Heiau	Mouth of the Wailua River	Includes five discrete parcels, sites: -104, -105, -106, -107, -335, in State Park	1962 National Register of Historic Places; 1981 Hawai'i Register of Historic Places
634	Extensive wetlands, former <i>lo 'i</i> area	North bank of Wailua River	130-acre, further archaeological work indicated	Hammatt et al. 1997:68,70

Site Number 50-30-08-	Site Type/Name (if any)	Location	Size/Constraints	Reference
660	Burial	North end of Coco Palms property, North of Wailua River mouth	1 historic burial, consultation and monitoring in vicinity indicated	Elmore and Kennedy 2000
667	Linear Terrace	Mauka of Smith's Tropical Paradise	Further archaeological work indicated	Hammatt & Shideler 2003
668	Cement slabs dated 1926	Smith's Tropical Paradise	Further archaeological work indicated	Hammatt & Shideler 2003
676	Alignments & enclosures	Makai end Puʻu Kī Ridge	Further archaeological work indicated	Hammatt & Shideler 2003
677	two lava tubes	N side of Puʻu Kī Ridge	Further archaeological work indicated	Hammatt & Shideler 2003
678	Terrace	Central Pu'u Kī Ridge summit	Further archaeological work indicated	Hammatt & Shideler 2003
679	Overhang rock shelter	SW side of Pu'u Kī Ridge	Further archaeological work indicated	Hammatt & Shideler 2003
756	Terrace	North bank of Wailua River	In State Park, 30 m by 12 m, further archaeological work indicated	Hammatt et al. 1997:68,70
761	Burial	North bank of Wailua River mouth	Consultation and monitoring in vicinity indicated	Ida and Hammatt 1998
1711	Disconntinuous cultural layer	N side of Coco Palms	Consultation and monitoring in vicinity indicated	Dega & Powell 2003

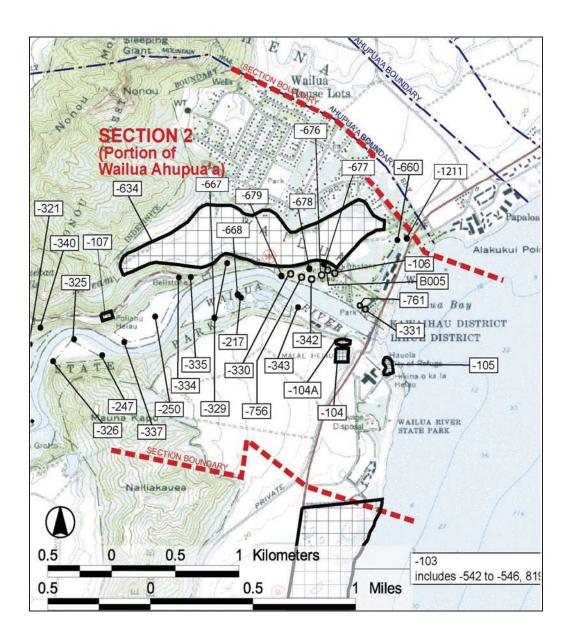


Figure 12. Historic Properties in Coastal Wailua Ahupua'a

Attachment F

Dr. Alan Downer
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawai`i 96707

September 30, 2021

Dear Dr. Downer and SHPD staff:

Thank you for your review and comments pertaining to SCS Project 2447 (AMP-13) titled, Archaeological Monitoring Plan for the Wailua Sewage Pump Station (SPS) No. 1 Rehabilitation Project, Wailua Ahupua'a, Līhu'e District, Island of Kaua'i, Hawai'i [TMK: (4) 3-9-006:019] (Opack and Dega, April 2020, Revised August 2020, September 2020, May 2021) SHPD received the subject draft report on June 4, 2021. We have revised our document (Proj 2447 AMP-15) in accordance with your comments (LOG NO: 2020.02812/Doc. No. 2012AJ05) and discussion with the County of Kauai on August 17, 2021. For your convenience, we have highlighted the edited sections of the text as referenced from the archaeological monitoring plan revised in September 2020.

The Area of Potential Effect (APE) has been enlarged to 0.62 acres, as shown in Figure 1 of Appendix B, to include additional construction staging area and the buildings of the wastewater treatment plant. These buildings are covered in the Reconnaissance Level Survey (RLS) performed by Polly Tice, Research Director of MASON and Secretary of Interior (SOI) qualified architectural historian. The RLS, submitted under separate cover, evaluated direct impacts to the buildings as well as indirect impacts to the overall plant, and concludes the proposed effect is "No Historic Properties Affected" and the overall project poses no adverse effects to the existing site.

- 1. Page 1, the requested language has been added to paragraph 2. APE has been updated to 0.62 acres in paragraph 3 to include the buildings reviewed in the Reconnaissance Level Survey by MASON (SOI qualified architectural historian). The project area and APE are identical and have been updated in Appendix A and Appendix B.
- 2. Page 1, paragraph 3, line 1 has been edited.

- 3. Page 1, paragraph 3 has been edited. The APE has been updated to 0.62 acres. Pages 3, 4, and 5, the figures have been updated to reflect the revised APE.
- 4. Page 1, lines 7-8 have been edited. The project's proponent and participants have been updated.
- 5. Thank you for this comment. We cannot add a scale to the TMK map because these maps have been altered in size making the scale provided by REDI Property Tax inaccurate. Figures 3 and 4 do have Google Earth scales in the lower right-hand corner, which are difficult to see. We have edited Figures 3 and 4 to include scales.
- 6. The requested language has been added to page 6, paragraph 2.
- 7. Thank you for this comment. As stated above, we are adding a scale. We have added the soil maps to the plan. We have cropped the area to improve legibility and also added notes about the soils around the project area in that figure.
- 8. Thank you for this suggestion. The section has been revised.
- 9. Revisions were made to address comments and paragraphs have been consolidated to avoid repeating information.
- 10. Revised to indicate commoners.
- 11. We corrected the spelling of Erkelens and Hammatt and replaced Figure 5.
- 12. Base maps updated with citation and date.
- 13. The requested citation has been added to page 16. Yent 2005 is already on Figure 5 and does not need a label.
- 14. Polly Tice, MASON Research Director, completed the RLS and evaluation of effect. Ms. Tice meets the SOI Professional Qualification Standards for an architectural historian. The RLS will be submitted under separate cover.
- 15. The requested language has been added (see Item 9, page 19).
- 16. Page 18, Item 4, line 4, has been edited. Thank you for the remainder of this comment. This information will be included in the AMR.
- 17. Thank you for this comment. The spelling of "analysis" has been corrected.
- 18. Thank you for this comment. We have addressed the curation protocol herein.
- 19. The requested language has been added to page 19, paragraph 4, line 4.
- 20. Page 20, paragraph 5, the requested edit has been made.
- 21. The requested SHPD review letter, dated August 24, 2020 (not August 27, 2020) has been added to Appendix C.
- 22. Thank you for this comment. We have cited Limitaco Consulting Group, as requested, as they created the figure in September 2021.

Thank you, again, for your careful review of SCS Project 2447 (AMP-13) titled *Archaeological Monitoring Plan for the Wailua Sewage Pump Station (SPS) No. 1 Rehabilitation Project, Wailua Ahupua'a, Līhu'e District, Island of Kaua'i, Hawai'i [TMK: (4) 3-9-006:019]* (Opack and Dega, April 2020, Revised August 2020, September 2020, May 2021). We look forward to receiving SHPD's review of the current draft (AMP-15).

Aloha,

Cathleen Dagher

Senior Archaeologist

Attachment G



119 Merchant Street Suite 501 Honolulu, HI 96813

P 808.536.0556

6 808.526.0577

MASONARCH.COM

September 21, 2021

Julia Flauaus Architectural Historian State Historic Preservation Division 601 Kamokila Blvd., Rm.555 Kapolei, Hawaii 96707

Re:

HICRIS Project No. 2020PR34919. HRS 6E-8 Review, Wailua Sewage Pump Station (SPS) No. 1 Rehabilitation Project, Wailua Wastewater Treatment Plant, Kauai, Hawaii.

Dear Julia,

Mason Architects, Inc. (MASON) was hired by Limtiaco Consulting Group to assist with Hawaii Revised Statute (HRS) 6E-8 historic architecture consultation for improvements proposed for the Wailua Wastewater Treatment Plant (WWTP). SHPD staff requested this Reconnaissance Level Survey (RLS) as part of their review of a draft Archaeological Monitoring Plan by SCS Hawaii. (Log No. 2020.02812, Doc. No. 2012JA05)

To follow is a summary of our RLS and evaluation of effect findings. This work was completed by me, and I do meet the Secretary of the Interior (SOI) Professional Qualification Standards for architectural historian.

Identification and Inventory of Historic Properties (HAR §13-275-5)

As shown in our enclosed RLS, we inventoried and identified historic properties within and beyond the Area of Potential Effect (APE) used in the draft AMP. Our historical research and assessment covered the *entire* Wailua WWTP site because the entire site's history and context needed to be understood to make a proper significance/integrity evaluation, and evaluation of effect.

The Wailua WWTP was built in 1965 and is identified as a historic property since it is over 50 years in age. However, as discussed below, research shows that very little of the plant today is over 50 years in age.

Evaluation of Significance (HAR §13-275-6) and Integrity

HAR § 13-275-6 (b) (Integrity)

Although the Wailua WWTP was built in 1965, it has lost its historical integrity since it is significantly altered. Numerous expansions and modifications, often entailing demolition and reconstruction, have taken place. This includes projects in the years 1976, 1982, 1992, 2005, and 2016. Only one building built as part of the original 1965 plant facility is extant, the MCC Building. All other buildings were built in later periods and are less than 50 years in age.



As a wastewater treatment plant complex, it does not retain historical integrity in full. Our assessment of integrity found that:

- It retains integrity of Location, since it has not been moved;
- It retains integrity of Association since it fulfills its historic role and function within the plant, and does so in relationship to the surrounding resort and residential communities;
- It only partially retains integrity of Setting and Feeling since its immediate setting outside the plant is similar to the historic period: Lydgate Park still borders the site, and Nalu Road is still largely undeveloped. However, because the individual buildings and facilities within the plant have changed, its Setting and Feeling are, to some degree, compromised;
- It retains a small measure of integrity of Design, Workmanship, and Materials since one building, the MCC Building, is extant and largely unchanged from the historic period, exhibiting its historic design, Workmanship, and Materials. Nevertheless, most buildings and other tanks and equipment have been replaced, and date from non-historic periods (i.e., are less than 50 years in age). (Compare Figs. 1 and 2 in the RLS.) The overall design of the plant is somewhat similar in layout to its original plan, albeit with multiple additions of buildings, tanks, and equipment. As such, the overall integrity of Design, Workmanship, and Materials is largely missing.

HAR § 13-275-6 (b) (Significance)

In consideration of HAR Sec. 13-275-6, the Wailua WTTP is evaluated as not significant as follows:

- (1) Criterion "a" The Wailua WWTP has not made an important contribution to the broad patterns of Hawaii's history. While its development as a sewage treatment plant certainly supported Wailua residents' and the adjacent resorts' need for sewage treatment, it is a utilitarian support system that has continued to change over time in response to demand. It is not symbolic of Wailua's resort and tourism development itself. Further, while a likely act of sabotage occurred at the plant during public worker strikes in the 1970s, it was a relatively minor event, not a noteworthy historical act that characterized that period of strife in Hawaii's labor history. Other sites, facilities and institutions, such as McKinley High School on Oahu, were more involved.
- (2) Criterion "b" The Wailua WWTP plant is not significant under Criterion b since it has no known association with the "lives of persons important in our past."
- (3) Criterion "c" The Wailua WWTP is not significant under Criterion c since its design, layout, and individual features are not representative of "distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic value."



- (4) Criterion "d" The Wailua WWTP is not significant under Criterion d since it is not known for having "yielded, or may be likely to yield, information important in prehistory or history."
- (5) Criterion "e" MASON is not a qualified ethnographer that meets the qualifications set forth in Chapter 13-281, and did not evaluate this property for Criterion e. The archaeological consultant for this project, SCS Hawaii, has indicated no historic properties are present in the project area that meets Criterion e.

Determining effects to significant historic properties (HAR §13-275-7)

The proposed work includes rehabilitation of the Wailua SPS No. 1 by installing two new submersible pumps to replace the aging pumps at the facility. Modifications to the subsurface concrete well and pump enclosures will be required along with modifications to valves, piping, electrical and control wiring, and other appurtenant improvements. None of these are evaluated as significant historical resources. The work to the MCC Building is minimal, and includes modifications to electrical panels on the interior, and new underground electrical wires connecting to a panel already mounted on the exterior of the building. No architectural modifications on the exterior are proposed.

Proposed effect is "No Historic Properties Affected." Overall, the project poses no adverse effects to Wailua WWTP since the proposed work does not affect any historically significant properties.

(Proposed) Mitigation (§13-275-8)

No mitigation is proposed since no historic properties are affected.

We are seeking the State Historic Preservation Division's (SHPD) concurrence on this finding. We look forward to hearing from you.

Regards,

Polly Tice

Research Section Director

Enclosures: Reconnaissance Level Survey (RLS)

Attachment H

Contact	Title / Position	Organization / Affiliation	Mailing Address	Email Address
Dan Ahuna	Kaua'i Island Representative	Office of Hawaiian Affairs	PO Box 1355 Kapa'a, HI 96746	trusteeAhuna@oha.org
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Liberta Hussey Albao	President	Queen Debra Kapule Hawaiian Civic Club	PO Box 164 Kapa'a, HI 96746	libertaha@hotmail.com
Suzanne Case	Chairperson	Department of Land and Natural Resources	1151 Punchbowl Street, Room 130 Honolulu, HI 96813	dlnr@hawaii.gov
Curt Cottrell	Administrator	Division of State Parks, Department of Land and Natural Resources	P.O. Box 621 Honolulu, HI 96809	dlnr@hawaii.gov
Mahealani Cypher	Secretary	Koʻolau Foundation	PO Box 4749 Kaneohe, HI 96744	malamapono744@aol.com
Alan Downer, PhD	Administrator	State Historic Preservation Division, Department of Land and Natural Resources	Kakuhihewa Building 601 Kamokila Blvd., Suite 555 Kapolei, HI 96707	Alan.S.Downer@hawaii.gov (submitted via HICRIS)
Elena Farden	Executive Director	Native Hawaiian Education Council	735 Bishop Street, Suite 224 Honolulu, HI 96813	nhec@nhec.org
Hailama Farden	President	Association of Hawaiian Civic Clubs	PO Box 1135 Honolulu, HI 96807	AHCC.Nuhou@gmail.com
Kiersten Faulkner	Executive Director	Historic Hawai'i Foundation	680 Iwilei Road Dole Office Building Tower, Suite 690 Honolulu, HI 96817	Kiersten@historichawaii.org
Blossom Feiteira	President	Association of Hawaiians for Homestead Lands	2149 Lauwiliwili St., Ste. 200 Kapolei, HI 96707	info@ahhl.org
Sylvia Hussey, Ed.D	Ka Pouhana, Chief Executive Officer	Office of Hawaiian Affairs	560 N. Nimitz Hwy., Suite 200 Honolulu, HI 96817	sylviah@oha.org
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Noelani Josselin	Cultural Practitioner			noelanijosselin@yahoo.com
Billy Kaohelauliʻi	Representative	Ahu Moku	808-742-9575	terriehayes@gmail.com

Contact	Title / Position	Organization / Affiliation	Mailing Address	Email Address
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Carol Lovell	Representative	Kawaihau, Kaua'i Burial Council	Kakuhihewa Building 601 Kamokila Blvd., Suite 555 Kapolei, HI 96707	
Noa Mau-Espirito		Na Mookupuna o Wailua	6200 Olohena Rd, Unit A Kapaa, HI 96746	nkeliiua@gmail.com
Patrick T. Porter	Director	Department of Parks and Recreation, County of Kaua'i	444 Rice St. Moʻikeha Building, Suite 105 Līhuʻe, HI 96766	parks@kauai.gov
Dennis Ragsdale	Advocate General	Kingdom of Hawaiʻi	1777 Ala Moana Blvd., #142-102 Honolulu, HI 96815	kingdom@pixi.com
Rayne Regush	Chair	Wailua-Kapa'a Neighborhood Association		rayneregush@aol.com
Donna Kaliko Santos		Nā Kuleana o Kānaka 'Ōiwi	PO Box 1541 Līhu'e, HI 96766	kaliko08@outlook.com
Franz Schmutzer	VP-Interim President	Kauaʻi Historical Society	4396 Rice St. #101 Līhu'e, HI96766	info@kauaihistoricalsociety.org
La'akea Suganuma	President	The Mary Kawena Pūkuiʻi Cultural Preservation Society	835 Ahuwale Street Honolulu, HI 96821	marykawenapukui@gmail.com
Mililani B. Trask	Convenor	Na Koa Ikaika Ka Lahui Hawaii	PO Box 6377 Hilo, HI 96720	mililani.trask@icllchawaii.com
Taffi Wise	Executive Director	Kanu o ka 'Āina Learning 'Ohana (KALO)	PO Box 6511 Kamuela, HI 96743	taffi@kalo.org